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ARMY TRAINING DEVELOPMENTS INST FORT MONROE VA

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PROCEEDINGS OF THE TRADOC CHIEFS OF ANALYSIS SEMINAR HELD IN NE--ETC(U)
OCT 79

UNCLASSIFIED

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Needs Assessment Critical Task Selection Site Selection Job Analysis Hard Skill Analysis Enlisted Training Strategy Task Analysis Soft Skill Analysis Evaluation/Analysis Learning Analysis Common Tasks Intercommand Coordination Task Inventory		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The proceedings represent the presentations made at the second TRADOC Chiefs of Analysis Seminar held at the Newport News Holiday Inn, Newport News, VA, 14-16 Aug 1979. The Seminar theme was Soft Skill Analysis, however, other related topics were also treated. The sponsor of this seminar was the Occupational Research & Analysis Division of Training Developments Institute, Fort Monroe, VA 23651. (over) 411 434 over 703		

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The presentations do not necessarily reflect official TRADOC views on the subject. The intent of the seminars is to permit the service schools and invited speakers to present their opinions on varied subjects in order to enhance the Army's job/task analysis efforts.

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DEPARTMENT OF THE ARMY
TRAINING DEVELOPMENTS INSTITUTE
FORT MONROE, VIRGINIA 23651

ATTNG-TDI-ORA

PROCEEDINGS OF THE TRADOC CHIEFS OF ANALYSIS SEMINAR
14-16 August 1979
Newport News, VA

1. The second TRADOC Chiefs of Analysis Seminar was held at the Newport News Holiday Inn, Newport News, VA, on 14 thru 16 August 1979. The major theme for this seminar was "Soft Skill Analysis", however, other topics requested at a previous seminar and subsequent to that time were incorporated in the agenda items.

2. The sponsor for this seminar was the Occupational Research and Analysis Division (ORAD), of the Training Developments Institute (TDI), Fort Monroe, VA 23651 (Telephone: Comm 804-727-3608, AV 680-3608).

3. The purpose of the Chiefs of Analysis seminars is to provide a forum in which the TRADOC service school's chiefs of analysis can interact with their peers and the TRADOC agency tasked with the proponency for job and task analysis policy and training (ORAD, TDI).

4. Seminar presentations are provided in their entirety for empirical purposes and to avoid misinterpretation of the data/facts provided. Because of the nature of this research (i.e., to resolve the training development community's problem in coping with soft skill analysis) this effort is considered to be but one phase of the overall soft skill analysis (SSA) effort to provide guidance on:

- o SSA Identification
- o SSA Procedures
- o SSA Testing

5. The presentations are not meant to reflect official TRADOC views on the subjects. The intent of these seminars is to permit the service schools and invited speakers to present their opinions on varied subjects and solicit feedback so as to better our analysis efforts. In the area of SSA there is no one way to accomplish this effort. Research conducted by ORAD has indicated that many individuals and

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agencies have indicated a need to have a process, provided general comments about the problem, failed to provide procedural guidance on "How to" do the process; especially when the guidance must be directed to novice analysts in the TRADOC service schools (e.g., enlisted personnel in grades E6-E8 and officers in grades 03-04) being assigned without support of training or education to equip them with the skills required to do their job. To this end ORAD is devoted to continue their research mission and support the analysis efforts for OPMS and EPMS. To assist in achieving this effort ORAD-TDI effected a scientific support contract through the Army Research Office, Durham, NC from which the support of the following individuals was obtained:

Dr. Robert Branson, Florida State University
Dr. Robert Gagne, Florida State University
Mr. Ivan Horabin, Consultant
Dr. Charles Reigeluth, Syracuse University
Dr. David Merrill, Courseware, San Diego

6. The agenda for this seminar is at inclosure 1. List of attendees is at inclosure 2.

7. Executive Summary of the Presentations:

a. Welcome/Opening Remarks (LTC Brad Walton, Chief, Occupational Research and Analysis Division): LTC Walton described the purpose of the TRADOC Chiefs of Analysis Seminars, the organizational structure of TDI, the Soft Skill Analysis milestones and the status of TRADOC Pamphlet 351-4 (T), Job and Task Analysis (J&TA) Handbook and the TRADOC J&TA Course (Slides at Incl 3).

b. Service School Perspectives of SSA (CPT Robert Begland, ORAD): CPT Begland provided feedback to the attendees on responses received from the service schools, as a result of an ORAD tasking message on how they perceive SSA and how they integrate in functional categories by service school and the present list of officer common tasks. Backup material is at Incl 4.

c. Seminar Expectations (LTC Walton): This session was held to determine what each attendee's expectations were at the onset of this seminar. Rationale for this exercise was that prior to the seminar many prospective attendees called ORAD with the impression that the seminar was to be a soft

skill analysis workshop: to disseminate TRADOC policy/guidance on how to perform soft skill analysis (Slides at Incl 5). In reality, the seminar was held to solicit and elicit more data from the service schools and guest speakers on the subject of soft skill analysis. In turn, the above mentioned scientific support personnel (SSP) were able to obtain first-hand knowledge/responses on a 1:1 ratio.

d. Task Analysis Level of Specificity for SSA (Mr. John Brady, ADMINCEN): Mr. Brady discussed the ADMINCEN's categories for soft skill tasks (e.g., interpersonal, judgmental and creative tasks) and characteristics/examples/comments for each (slides at Incl 6).

e. USAADS SOP for Selection of Critical Tasks and Training Sites (Mr. Gene Stapher, Air Defense School): Mr. Stapher presented the Air Defense School's process for critical task selection and training site recommendation as being implemented at that school. Supporting documentation for his presentation is at Incl 7.

f. ISD useage in Foreign Language Training (Dr. Paul Madarasz, Defense Language Institute): Dr. Madarasz described the process used by DLI in delineating job data requirements for the 96C Interrogator involved in interviewing requirements. The approach used is outlined in a summary flowchart and data display at incl 8.

g. Job Task Analysis vs Task Analysis: (Mrs Martha Gan and CPT Gary Pittman, DINFOS): This presentation highlighted the Defense Information School (DINFOS) focus on skills and knowledges rather than on tasks. Presentation outline and supporting slides are at Incl 9.

h. Air Force Survey Initiatives for Soft Skill Areas (CPT Jerry Barucky, Occupational Measurement Center, Randolph AFB, TX): CPT Barucky discussed the professional military education occupational survey project which he conducted addressing the areas of leadership, management and communicative skills. Supporting narrative and slides are at Incl 10.

i. Soft Skill Analysis Problem Areas (CPT Begland): The purpose of this activity was to elicit the three major

problem areas each service school perceived within the area of Soft Skill Analysis. The problem statements addressed most frequently in the "top three" areas were (see incl 11):

- (a) How do you analyze soft skills/tasks (# 2)?
- (b) How do you write conditions/standards for soft tasks (# 7)?
- (c) How do you know a soft skill/soft task when you see one (# 2)?

j. Soft Skill Analysis Strawman Model (Dr. R. Branson, Florida State): Dr. Branson (spokesman for the Scientific Support Personnel with whom OR&A contracted to obtain support in the SSA research effort) presented a strawman model for SSA to solicit feedback from the attendees on its application in the TRADOC service schools. As addressed earlier, the seminar was but one phase in the SSA research effort. Its premise in this phase was to provide input to and interface between the SSPs and the service school representatives. Discussion generated during this presentation and follow-up group sessions with selected attendees directly influenced the direction in which the DRAFT TRADOC guidance will proceed for SSA. Backup slides for this presentation are at Incl 12.

k. Intercommand Coordination for J&TA TDY (Dr. Al Longo, ORAD): Dr. Longo presented current Army and TRADOC guidance on TDY coordination (CONUS & OCONUS) Incl 13). This data was at the request of the previous seminar attendees in February on how TDY coordination should be effected.

l. Infantry School Training Assistance Assessment Team at Ft Hood (MAJ Peter Stankovich, Infantry School): MAJ Stankovich presented the Infantry School concept on how to manage and coordinate J&TA survey requirements with FORSCOM units. This presentation followed Dr. Longo's theme for CONUS intercommand coordination. Supporting information is at Incl 14.

m. Identifying, Measuring, and Training "Soft Skill" Competencies Which Predict Performance In Professional, Managerial and Human Service Jobs (Dr. Lyle Spencer, McBer & Co): Dr. Mel Spehn (Organizational Effectiveness Training

Center: OETC) introduced Dr. Spencer and noted that McBer & Co are presently under contract with OETC to conduct a task analysis of the Organizational Effectiveness Staff Officer Course at Ft Ord. Specific comments leading into Dr. Spencer's presentation were:

(1) How do you train OESO's in soft skills which they use with their clients)? (Note: They compose a large-part of both their training and the consultant effort).

(2) Early task analysis by "Initiative Analysis of Experienced Professionals" produced 88 competencies (knowledges and skills).

(3) Subsequent evaluation of field OESO's indicated need for 4 more competencies.

(4) Initial analysis in traditional job/task sense proved (a) extremely costly and (b) non-discriminatory of real functions of effective OESO's.

(5) Contract has been made through ARI with McBer Corporation to assist in task analysis of OESO's. It is now in Phase I of a four phase program lasting 1 year. The advantages of the McBer approach for OEC&S are (a) the approach focuses on the personal characteristics of the OESO as well as the cognitive tasks he does (b) the focus is on training to the criteria of high achievers or most successful OESO's and (c) much work previously done with the State Dept and US Navy can be used to benefit the OE analysis.

Dr. Spencer discussed an approach to soft skill analysis that addressed competency analysis (i.e., elements of a job vs people who do the job well). In essence it is a method to identify the "superstars," survey these individuals on how they do their job, and train personnel on these key skills. Dr. Spencer's supporting slides, paper on this subject and the research McBer & Co conducted with the Navy leadership and management training program are at Incl 15.

n. Officer Common Task (Mr. Steve Prelewicz, TDI): Mr. Prelewicz discussed the RETO officer common task status, findings, strategy and examples. (Incl 16).

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o. Training Developer Decision Aid (Dr. Michael Strub, ARI, Ft Bliss, TX): Dr. Strub's objective with this project was to develop a model consistent with ISD procedures to aid the training developer in the processes and decisions concerning what, where, and how to train soldiers to perform duties. Inclosure 17 describes this presentation.

p. TDIS Status Mr. Al Evans, ATSC-MISO): Mr. Evans discussed the current status of the Training Development Information System as well as its utilization within the schools. The slides at inclosure 18 address the key points addressed in this information briefing.

q. HumRRO Job Aids for Use in the Implementation of ISD (Mr. Russell Schulz, HumRRO): Mr. Schulz's presentation is discussed in inclosure 19. This project was conducted under contract with ARI and was initiated at a time no defined procedural guidance was available within TRADOC: before the current TRADOC Reg and Pam 351-4 were written. As such some data within the DRAFT versions of the HumRRO job aids differ from current guidance in TRADOC series 351-4 publication.

r. RETO Implementation (MAJ Grover Josey, TDI): MAJ Josey gave a current overview of the RETO effort within TRADOC. Supporting slides for this presentation are at inclosure 20.

s. Enlisted Training Strategy (MAJ Steve Yedinak, NCOD): MAJ Yedinak provided an information briefing on the TRADOC Enlisted Training Strategy concept in which each specialty proponent has been held responsible for a comprehensive approach for enlisted training to insure all factors that affect a unit's mission accomplishment are addressed in the training progression for enlisted personnel. Supporting slides for his presentation are at inclosure 21.

t. Enlisted Training Strategy: Infantry School (MAJ Peter Stankovich): MAJ Stankovich's presentation was a natural progression for the previous ETS discussion by MAJ Yedinak. He explained the CMF 11 progression strategy and how it integrated with the overall school strategy. Support data for his presentation and the ETS briefing presented by MG Grange (CMDT, Inf School) are at inclosure 22.

u. Evaluation and Analysis (COL J.D. Rockey, Dir Eval, Trans School): COL Rockey addressed the link that is

necessary in a systematic approach to training: Evaluation, and how it is implemented in the Transportation School. Supporting data for this presentation are at inclosure 23.

v. TRADOC Evaluation Efforts (Mr. Don Bartlett, Dir of Eval, TRADOC): Mr. Bartlett presented the Headquarters TRADOC perspective on their role as evaluators within the TRADOC training development community Incl 24).

24 Incl
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BRADFORD L. WALTON
LTC, IN
C, OR&A Div

CF:
Seminar Attendees (1 ea)
Defense Documentation
Center (1)

SEMINAR SCHEDULE

<u>TIME</u>	<u>TITLE</u>	<u>PRESENTOR</u>	<u>AGENCY</u>
<u>TUESDAY</u>			
7:30	REGISTRATION	SSG Hale	OR&A Div
8:00	WELCOME	LTC Walton	OR&A Div
TRADOC			
8:15	Opening Comments	LTC Walton	OR&A Div
8:45	Service School Perspectives	CPT Begland	OR&A Div
9:15	B R E A K		
9:45	Expectations of Seminar	LTC Walton	
10:15	Discussion	LTC Walton	
10:45	Task Analysis Level of Specificity	John Brady	Admin Cen
11:15	AD CT/File Selection SOP	Gene Stapher	Air Defense
11:45	L U N C H		
12:00	L U N C H		
12:30	L U N C H		
13:00	ISD & Foreign Language Tng	Paul Madaresz	DLI
13:30	Job & Task Analysis vs Learning Analysis	Mrs. Mickey Gan CPT Gary Pitman	DINFOS
14:00	B R E A K		
14:30	Air Force Survey Initiatives for Soft Skill Areas	CPT Barucky	OMC, Randolph AFB
15:00	Analysis Problems in Schools	CPT Begland	
15:45	Problem Prioritization	CPT Begland	
16:15	1st Day Concluding Comments	LTC Walton	
16:30	OPEN		
17:00			
17:30	HAPPY HOUR		

<u>TIME</u>	<u>TITLE</u>	<u>PRESENTOR</u>	<u>AGENCY</u>
<u>WEDNESDAY</u>			
8:00	Review Previous Day's Activities	LTC Walton	
8:30	STRAWMAN Model	Robert Branson	Florida State
9:00	"		
9:30	"		
10:00	B R E A K		
10:30	Intercommand Coordination	Al Longo	OR&A Div
10:45	Infantry School Experience at Fort Hood	MAJ Stankovich	Inf Sch
11:15	Job & Task Analysis Accountability in TRAMIS	Bob Durkee	PRD
11:30	L U N C H		
12:00	L U N C H		
12:30	L U N C H		
13:00	Identifying, Measuring & Training "Soft Skill" Competencies which predict performances in professional, managerial and human services jobs.	Mel Spehn Lyle Spencer	OETC
13:30	"		
14:00	Officer Common Tasks (RETO)	Steve Prelewicz	OTSD
14:15	B R E A K		
14:45	ARI Trainer Developer's Discussion Model	Mike Strub	ARI, Ft Bliss
15:15	OPEN		
15:45	TDIS Status	Al Evans	MISO
16:15	OPEN		
18:30	HAPPY HOUR		
19:00	DINNER		

<u>TIME</u>	<u>TITLE</u>	<u>PRESENTOR</u>	<u>AGENCY</u>
<u>THURSDAY</u>			
8:00	Review Previous Day's Activities	LTC Walton	
8:30	HumRRO Job Aids for Task Selection and Site Selection	Russell Schulz	HumRRO
9:00	"		
9:15	B R E A K		
10:00	RETO Status	MAJ Josey	OTSD
10:30	Enlisted Training Strategy (ETS)	MAJ Yedinack	NCOD
11:00	Infantry School ETS	MAJ Stankovich	
11:15	"		
11:30	L U N C H		
12:30	L U N C H		
13:15	Evaluation & Analysis	COL J.D. Rockey	Evaluation Transportation School
13:45	TRADOC Evaluation (HQ Perspective)	Don Bartlett	TRADOC Eval
14:00	"		
14:30	B R E A K		
15:00	Small Group Discussion & Seminar Wrap Up	LTC Walton	
16:00			
16:30			
17:00			
17:30			

ATTENDEES - SOFT SKILL ANALYSIS SEMINAR
14-16 AUGUST 79

ADMIN CEN	ATZI-TD-ETA	Mr. John B. Brady	699-4333
ADMIN CEN	ATZI-TD-TA-OPMS	LTC Joseph Dieduardo	699-2717
ADMIN CEN	ATZI-TD	Mr. Robert Johnson	699-4337
AHS	HSATIA	MAJ Wm. T. Charlton	471-3144
AHS	HSATIA	LT Margaret A. Thrasher	471-3144
AHS	HSATDE	CPT Samuel K. Rock, Jr.	471-6116
AIR DEFENSE	ATC-IT-A	MAJ Charles L. Reed	
AIR DEFENSE	ATSA-TD-IT	LTC Richard D. Stageberg	
AIR DEFENSE		Mr. Gene L. Stapher	
ALMC	DRXMC-LS	Dr. William Greer	687-4335
ALMC	DRXMC-LS	Dr. George R. Partin	687-4335
ARI		Sally VanNostrand	
ARI		Mr. Mike Strub (Ft Bliss)	
ARMOR	ATSB-TD-ID	LTC Robert A. Korkin	464-3546
ARMOR		MAJ Charles Osterman	
ARMOR		Mr. Gary Priest	
AVN CEN	ATZQ-TD-TAD-TA	Mr. Earnest Warner	558-7111
AVN CEN		SFC Anthony H. Brooks	
CAC	ATZL-TDA-AD	MAJ James W. Bryant	552-4498
CGSC	ATZLSW-DECAPA	MAJ William R. Sharp	552-3095
CHAP CEN	ATSC-DTD-OPS	CH(MAJ) Herman Keizer	770/292
CHAP CEN	ATSC-DTD-RES	CH(MAJ) William McAllister	770/292
CHAP CEN	ATSC-DTD-RETO	CH(MAJ) Huey Bridgman	770/292

DINFOS	ATXS-DTD-ATL	Ms. Martha A. Gan	699-4338
DINFOS	ATXS-DTD-TAD	CPT Gary Pittman	699-3769
DLI		Dr. Antoine Al-Haik	
DLI		Dr. Paul Madarasz	
DLI		CPT Lynn Harris	
ENGR SCH	ATZA-TDI-T	Mr. Leon R. Marshall	
FLD ARTY	ATSF-TD-IT	LTC John A. Evans	639-6376
FLD ARTY		Ms. Maxine Porter	
HUMRRO		Mr. Russell E. Schulz	
INF SCH	ATSH-I-VOD	CPT George Bowling	835-2934
INF SCH	ATSH-I-VED	MAJ Peter Stankovich	835-4219
INTEL/DEVENS		CPT Susan Werner	
INTEL/H	ATSI-TD-IT	MAJ Reginald H. Turner	879-5406
INTEL/H		CPT Norman B. Patten	
INTEL/H		Ms Audrey Clark	
JAG SCH	JAGS-ADN	MAJ Peter Plaut	274-7110
LOG CEN	ATCL-TP	Mr. Paul Greene	
MILPERCEN	DAPC-MSP-SI	Mr. Roy Wethy	

MMCS	ATSK-TD-PD	CW4 Louis Lowery	
MMCS	ATSK-TD-AD	Mr. Dan Wren	
MP SCH	ATZN-TD	Mr. Fred Casey	865-3717
MP SCH	ATZN-TDO	Mr. Clifford Hudson	865-4229
OETC	ATXW-RMA-TD	Dr. Mel Spehn	929-7058
ORD/CM (Ord)	ATSL-TD-TMP	MAJ Gerald C. Green	283-2678
ORD/CM (Ord)	ATSL-TD-TA	CPT Thomas Hooper	283-2255
ORD/CM (Chem)	ATSL-CLD-T	CPT Roy Williams	283-2205
ORD/CM (Chem)		1LT Gary Nolan	
QM SCH	ATSM-TD-TA	MAJ Gary W. Parris	687-3770
QM SCH		CPT James Holmes	
QM SCH		MAJ Hazel Swofford	
SCH MUSIC	ATTNG-SM-DTD	Mr. Gregory A. Prudom	927-9091
SCH MUSIC	ATTNG-SM-DTD	SSG William O'Shell	927-9091
SGM AC DY	ATSS-TD-TTAD	MAJ James D. Mooreland	
SGM AC DY		SGM George P. Drake	
SGM AC DY		MSG Terence Macaulay	
SIG SCH	ATZH-TD-A	Mr. Jack R. Redmon	780-4895
SIG SCH		Mr. John Myers	780-7526
SIG SCH		LTC Robert Sweeney	780-7468
SSP Consultant		Dr. Robert K. Branson	
SSP Consultant		Mr. Ivan Horabin	
SSP Consultant		Dr. Charles Reigeluth	

T School	ATST-TD-PR	MAJ F. C. Smeeks	
T School	ATST-TD	CPT Robert Wheeler	
T School	ATST-TD	Mr. Rick VanDeren	
T School	ATST-DAC-ET	Mr. Andy Davis	
T School	ATST-DAC-ET	Ms Mary Gibson	
TDI	ATTNG-TDI-ORA	LTC Bradford Walton	680-3609
TDI		CPT Robert Begland	680-3609
TDI		Dr. Alexander Longo	680-3608
TDI		SSG Jerry Hale	680-3608
TDI		Mr. Bernard Silverberg	680-3608
TDI	ATTNG-TDI-OTSD	MAJ Grover Josey	680-3211
TDI	ATTNG-TDI-OTSD	Mr. Steve Prelewicz	680-3211
TNG SPT CEN	AET	Mr. Charles Swann	
USAF (OMC)		CPT Jerry M. Barucky	487-6623
USAIMA	ATSU-TD-TAD	MAJ Joel Gruwell	236-8904
USAIMA	ATSU-TD-TAD	MAJ Frederick Browning	236-8904

OCCUPATIONAL RESEARCH AND ANALYSIS DIVISION,
TRAINING DEVELOPMENTS INSTITUTE



TRADOC CHIEFS OF ANALYSIS SEMINAR

14-16 AUGUST 1979

THEME: SOFT SKILL ANALYSIS

Encl 3

OCCUPATIONAL RESEARCH AND ANALYSIS DIVISION,
TRAINING DEVELOPMENTS INSTITUTE



PURPOSE OF CHIEFS OF ANALYSIS SEMINARS

**TO PROVIDE A FORUM WITHIN TRADOC FOR
CROSSFERTILIZATION OF IDEAS/COMMUNICATIONS
BETWEEN ALL TRADOC ACTIVITIES RESPONSIBLE
FOR JOB AND TASK ANALYSIS.**

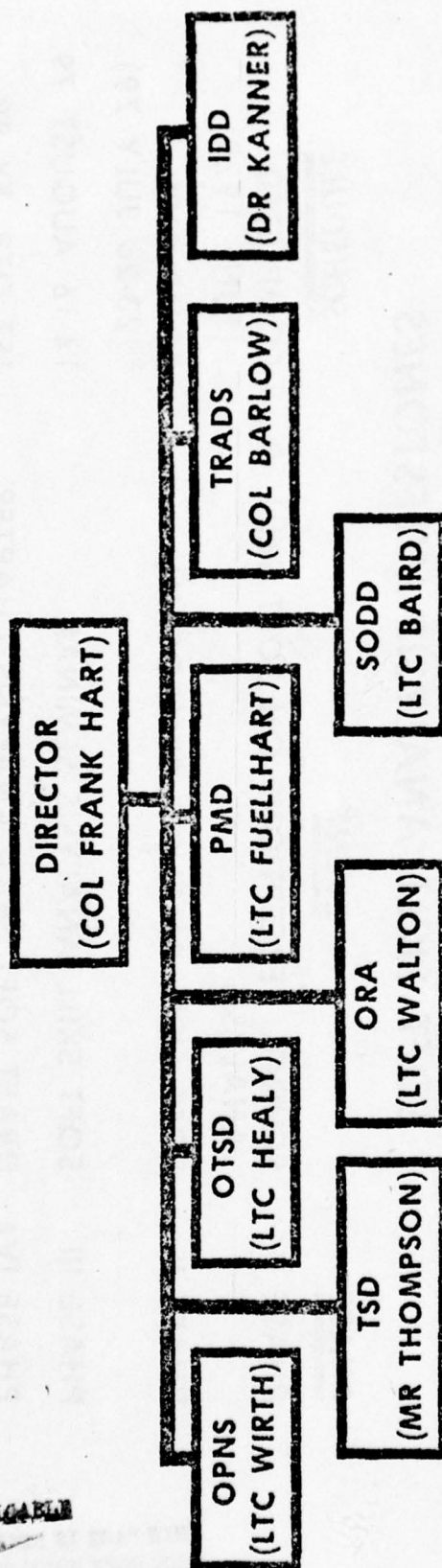
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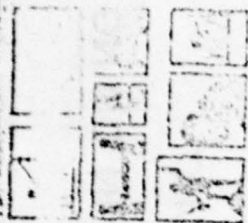


SOFT SKILL ANALYSIS MILESTONES

<u>PHASE</u>	<u>EVENT</u>	<u>SCHEDULE</u>
PHASE I	SCHOOL PERCEPTIONS ON SOFT SKILL ANALYSIS	COMPLETED (JUNE 1979)
PHASE II	SOFT SKILL ANALYSIS SYMPOSIUM	COMPLETED (23-26 JULY 79)
PHASE III	SOFT SKILL ANALYSIS SEMINAR	14-16 AUGUST 79
PHASE IVA	DRAFT SOFT SKILL ANALYSIS CHAPTER FOR TRADOC PAM 351-4	1ST QTR, FY 80
PHASE IVB	INITIATE STRAWMAN SOFT SKILL ANALYSIS TRAINING MODULES	1ST QTR, FY 80
PHASE VA	FIELD REVIEW/COMMENTS	1ST/2D QTR, FY 80
PHASE VB	SOFT SKILL ANALYSIS PROCESS VALIDATION	FY 80
PHASE VC	TRAINING MODULE REFINEMENTS	FY 80
PHASE VI	FINAL PUBLICATION W/TRADOC PAM 351-4	4TH QTR, FY 80

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TRADOC PAMPHLET 351-4(T)

JOB AND TASK ANALYSIS HANDBOOK

- DISTRIBUTION IN AUGUST 1979
- PUBLISHED AS "TEST" VERSION TO PERMIT/EFFECT REFINEMENTS DURING FY 80
- USER FEEDBACK ENCOURAGED
- RESEARCH FOR CHAPTERS 9 - SOFT SKILL ANALYSIS, 10 - COLLECTIVE/INDIVIDUAL INTERFACE, AND 11 - LCSMM/TD INTERFACE, ON-GOING
- FINAL VERSION 1ST QTR FY 81

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TRAINING DEVELOPMENTS INSTITUTE



TRADOC JOB & TASK ANALYSIS COURSE

- DISTRIBUTION IN AUGUST 1979
- CURRENT COURSE WILL PROVIDE THE BASE ON WHICH FURTHER MODULES WILL BE DEVELOPED.
- MODULES PRESENTLY IDENTIFIED FOR PREPARATION BY OR&A DIVISION DURING FY 80 WILL SUPPORT CHAPTERS 6 (SURVEY), 9 (SOFT SKILL ANALYSIS), 10 (COLLECTIVE/INDIVIDUAL INTERFACE), 11 (LCMM/TD INTERFACE), RESEARCH PROCEDURES TO SUPPORT FEA/JOB AND TASK ANALYSIS AND THE COMMANDER'S TRAINING STRATEGY.
- USER FEEDBACK ENCOURAGED
- AVAILABLE FOR IMPLEMENTATION IN OJT OR S&F FORMAT
- SHOULD BE COMPLETED BY ALL PERSONNEL INVOLVED IN DOING OR EVALUATING JOB AND TASK ANALYSIS

SERVICE SCHOOL PERSPECTIVES

Introduction:

This initial presentation was intended to inform the seminar participants as to the status of the ongoing research initiative into soft skill analysis. The discussion attempted to relate previous efforts, i.e., ARI, HumRRO, USCONARC Soft Skill Conference, civilian research, etc, with the present program.

Specific Comments:

The symposium conducted at the JAG school during previous month was described and its purpose specified.

The purpose of this seminar was described and the underlying philosophy behind the soft skill project explained.

The primary focus of this presentation related to the service school replies to a TDI message asking each school to describe the soft skill areas within each of its specialties. These replies have been integrated into a matrix of soft skill functional categories (incl 1), these categories were then analyzed by service schools (incl 2 and 3), and then this data compared against the present list of officer common tasks (incl 4). This data showed that there are substantial differences or perceptions within each of the service schools concerning what soft skills are.

Within several school responses there were detailed comments conceiving observations about soft skill analysis. Several of these comments were discussed (incl 5, 6, 7). It was noted that several school comments were supportive of the findings at the soft skill symposium.

CONCLUSION:

The purpose of this brief review of the school replies (copies of which were distributed) was to introduce the soft skill analysis project in the context of the seminar and other initiatives. The school replies showed the variety of functional categories perceived to be a soft skill area. Through this introduction, later presentations could be viewed in context.

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SOFT SKILL DEFINITIONS

TRANSPORTATION SCHOOL:

THOSE PRACTICES THAT ARE NOT CLEARLY IDENTIFIABLE AS TO
EITHER A DEFINITE BEGINNING AND END, OR INITIATING CUES
FOR PERFORMANCE.

ADMINCEN:

SOME OF THE DIFFICULTY IN ANALYSIS OF SOFT SKILL TASKS IS PERCEIVED RATHER THAN REAL....THE ONLY PROBLEM....LEVEL OF SPECIFICITY....A SECOND MISPERCEPTION IS THAT ALL MENTAL TASKS ARE SOFT SKILLS AND DEFY ANALYSIS....AS LONG AS...(IT) CAN BE SPECIFIED AND REAL WORLD CONDITIONS AND STANDARDS SPECIFIED THE TASK CAN BE ANALYZED.

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JAG SCHOOL:

ESSENTIAL QUALITIES OF A SOFT SKILL—

- THEY INVOLVE PROCESSES THAT SPAN TIME
- ARE DISCRETIONARY IN SEVERAL SENSES
- ACCOMPLISHMENT IS BASED PRIMARILY ON A WIDE RANGE OF KNOWLEDGE
- HUMAN INTERACTION AND BEHAVIOR PLAY IMPORTANT ROLES
- MORE THAN ONE POSSIBLE SOLUTION OR COURSE OF ACTION MAY BE SUCCESSFUL, OR AT LEAST BE & ACCEPTABLE

INTELLIGENCE CENTER:

STANDARDS MAY WELL BE THE GOVERNING FACTOR SOFT VS HARD SKILL DETERMINATION. PERSONAL PERCEPTION OF STANDARDS APPEARS TO BE ONE CRITERIA, VALUE JUDGEMENT IS ANOTHER. THE VERY LACK OF CONTINUITY OR CONSISTENCY OF STANDARDS FOR SOFT SKILL AREAS MAY WELL BE THE FOCUS OF STUDY.

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(THIS SCHOOL)...DECIDED TO CONCENTRATE IT'S EFFORTS
ON IDENTIFYING THE MENTAL STEPS WHICH LEAD TO
THE SOLDIERS PRODUCTION OF A DESIRED WORK
PRODUCT (AS CONTRASTED WITH)...MANY OF THE
TRADOC SCHOOLS THAT HAVE ADOPTED THE COMBAT
ARMS' APPROACH TO TASK ANALYSIS, i.e. IDENTIFYING
THE OVERT (BEHAVIORIAL) STEPS A SOLDIER PERFORMS....

SOFT SKILL CATEGORIES

- 1 AMMUNITION
- 2 AWARDS & PUNISHMENT
- 3 COMMUNICATIONS
- 4 COUNSELLING
- 5 COUNTERTERRORISM
- 6 COVER/CAMO/COUNCEAL
- 7 CREATIVE
- 8 CRIMINAL INVESTIGATION
- 9 CRIME PREVENTION
- 10 DEMOLITIONS
- 11 DISCIPLINE LAW & ORDER
- 12 DISMOUNTED DRILL
- 13 ESCAPE/EVASION/SURVIVAL
- 14 EVALUATION
- 15 FIELD SANITATION
- 16 FIRE REQUESTS
- 17 FIRST AID
- 18 HUMAN RELATIONS
- 19 INSPECTIONS
- 20 INTELLIGENCE/COUNTER
- 21 INTERPERSONAL
- 22 JUDGMENTAL
- 23 LAND NAVIGATION
- 24 LEADERSHIP
- 25 LEGAL/ETHICAL
- 26 MAINTENANCE
- 27 MANAGING
- 28 NBC
- 29 OBSTACLES/MINES
- 30 PERSONAL HYGEINE
- 31 PERSONNEL
- 32 PHYSICAL FITNESS
- 33 PHYSICAL SECURITY
- 34 PLANNING
- 35 PRISONER OF WAR OPER
- 36 PROFESSIONALISM
- 37 PUBLIC RELATIONS
- 38 SAFETY
- 39 SUPERVISION
- 40 SUPPLY
- 41 TACTICAL EMPLOYMENT
- 42 TECHNICAL/MOS
- 43 TRAINING
- 44 UNIT ADMINISTRATION
- 45 VEHICLES
- 46 WEAPONS

SERVICE SCHOOLS

SOFT SKILL CATEGORIES

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 AMMUNITION	X																						
2 AWARDS & PUNISHMENT	X																						
3 COMMUNICATIONS	X																						
4 COUNSELLING	X																						
5 COUNTERTERRORISM																							
6 COVER/CAMO/COUNCEAL																							
7 CREATIVE	X																						
8 CRIMINAL INVESTIGATION																							
9 CRIME PREVENTION																							
10 DEMOLITIONS																							
11 DISCIPLINE LAW & ORDER																							
12 DISMOUNTED DRILL																							
13 ESCAPE/EVASION/SURVIVAL																							
14 EVALUATION																							
15 FIELD SANITATION																							
16 FIRE REQUESTS																							
17 FIRST AID																							
18 HUMAN RELATIONS																							
19 INSPECTIONS																							
20 INTELLIGENCE/COUNTER																							
21 INTERPERSONAL																							
22 JUDGMENTAL																							
23 LAND NAVIGATION																							
24 LEADERSHIP																							
25 LEGAL/ETHICAL																							
26 MAINTENANCE																							
27 MANAGING																							
28 NBC																							
29 OBSTACLES/MINES																							
30 PERSONAL HYGEINE																							
31 PERSONNEL																							
32 PHYSICAL FITNESS																							
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34 PLANNING																							
35 PRISONER OF WAR OPER																							
36 PROFESSIONALISM																							
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39 SUPERVISION																							
40 SUPPLY																							
41 TACTICAL EMPLOYMENT																							
42 TECHNICAL/MOS																							
43 TRAINING																							
44 UNIT ADMINISTRATION																							
45 VEHICLES																							
46 WEAPONS																							

SOFT SKILL CATEGORIES

SERVICE SCHOOLS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	NO	TOTAL
1 AMMUNITION	X																							1	1
2 AWARDS & PUNISHMENT	X																							1	1
3 COMMUNICATIONS	X																							6	6
4 COUNSELLING	X																							11	11
5 COUNTERTERRORISM																								2	2
6 COVER/CAMO/COUNCEAL																								2	2
7 CREATIVE	X																							1	1
8 CRIMINAL INVESTIGATION																								1	1
9 CRIME PREVENTION																								1	1
10 DEMOLITIONS																								1	1
11 DISCIPLINE LAW & ORDER																								1	1
12 DISMOUNTED DRILL																								2	2
13 ESCAPE/EVASION/SURVIVAL																								3	3
14 EVALUATION																								1	1
15 FIELD SANITATION																								1	1
16 FIRE REQUESTS																								1	1
17 FIRST AID																								1	1
18 HUMAN RELATIONS																								1	1
19 INSPECTIONS																								1	1
20 INTELLIGENCE/COUNTER																								2	2
21 INTERPERSONAL																								3	3
22 JUDGMENTAL																								4	4
23 LAND NAVIGATION																								3	3
24 LEADERSHIP																								1	1
25 LEGAL/ETHICAL																								7	7
26 MAINTENANCE																								15	15
27 MANAGING																								4	4
28 NBC																								14	14
29 OBSTACLES/MINES																								3	3
30 PERSONAL HYGIENE																								2	2
31 PERSONNEL																								4	4
32 PHYSICAL FITNESS																								2	2
33 PHYSICAL SECURITY																								5	5
34 PLANNING																								11	11
35 PRISONER OF WAR OPER																								1	1
36 PROFESSIONALISM																								2	2
37 PUBLIC RELATIONS																								1	1
38 SAFETY																								2	2
39 SUPERVISION																								2	2
40 SUPPLY																								4	4
41 TACTICAL EMPLOYMENT																								12	12
42 TECHNICAL/MOS																								4	4
43 TRAINING																								9	9
44 UNIT ADMINISTRATION																								14	14
45 VEHICLES																								12	12
46 WEAPONS																								5	5

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

SERVICE SCHOOLS

SOFT SKILL CATEGORIES

1 AMMUNITION
2 AWARDS & PUNISHMENT
3 COMMUNICATIONS
4 COUNSELLING
5 COUNTERTERRORISM
6 COVER/CAMO/COUNCEL
7 CREATIVE INVESTIGATION
8 CRIME PREVENTION
9 CRIMINAL INVESTIGATION
10 DEMOLITIONS
11 DISCIPLINE LAW & ORDER
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25 LEGAL/ETHICAL
26 MAINTENANCE
27 MANAGING
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39 SUPERVISION
40 SUPPLY
41 TACTICAL EMPLOYMENT
42 TECHNICAL/MOS
43 TRAINING
44 UNIT ADMINISTRATION
45 VEHICLES
46 WEAPONS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	TOTAL	COMMON TASKS
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1	1
2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2	2
3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3	3
4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4	4
5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5	5
6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6	6
7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	7
8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8	8
9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	9	9
10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10	10
11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	11
12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12	12
13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	13
14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	14
15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	15	15
16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	16	16
17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	17	17
18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	18	18
19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	19	19
20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	20
21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	21
22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	22
23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	23
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	24	24
25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	25	25
26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	26	26
27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	27	27
28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	28	28
29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	29	29
30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	30	30
31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	31	31
32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	32	32
33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	33	33
34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	34	34
35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	35	35
36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	36	36
37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	37	37
38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	38	38
39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	39	39
40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	40	40
41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	41	41
42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	42	42
43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	43	43
44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	44	44
45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	45	45
46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	46	46

488

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

2.25

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SEMINAR EXPECTATIONS

PURPOSE: A. TO DETERMINE EACH ATTENDEE'S EXPECTATIONS REGARDING THIS SEMINAR.

B. TO DETERMINE THE PERCEPTIONS OF EACH ATTENDEE REGARDING THE RESULTS (OUTPUT) OF THIS SEMINAR.

PROCESS:

1. DURING FIRST FIVE MINUTES RECORD YOUR THOUGHTS ON EACH OF THE ABOVE ON A SEPARATE SHEET OF PAPER. INDICATE YOUR NAME ON EACH.

2. IN WORK GROUP CONFIGURATION TAKE 15 MINUTES TO OBTAIN A GROUP CONSENSUS FOR EACH OF THE ABOVE CATEGORIES.

3. NEXT STEP IS TO PRESENT EACH WORK GROUP'S FINDINGS:

A. EXPECTATIONS OF THIS SEMINAR.

B. PERCEPTION OF HOW THE RESULTS OF THE SEMINAR WILL BE USED.

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EXPECTATIONS (Continued)

WHAT THIS SEMINAR IS REALLY ALL ABOUT

- PHASE III OF OR&A'S MILESTONE SCHEDULE FOR SOFT SKILL ANALYSIS RESEARCH.
- PROVIDES FORUM/INTERFACE BETWEEN ATTENDEES, TDI AND SCIENTIFIC SUPPORT PERSONNEL, TASKED TO SUPPORT THIS PROJECT, THE ABILITY TO INTERACT/PROVIDE INPUT FOR SSA:
 - PROBLEM AREAS
 - LESSONS LEARNED
 - GOOD IDEAS
 - PERCEPTIONS
 - STRAWMAN FEEDBACK
- PERMITS PRESENTATION/DISCUSSION ON ISSUES SURFACED DURING LAST SEMINAR AND THOSE GENERATED SINCE THAT TIME.

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EXPECTATIONS (Continued)

HOW WILL YOUR COMMENTS AND FEEDBACK BE USED?

- WILL ASSIST OR&A IN ENSURING YOUR VALID CONCERNS ARE ADDRESSED IN:
- TRADOC PROCEDURAL GUIDES (HANDBOOK)
- SUPPORTING TRAINING MATERIALS (JOB & TASK ANALYSIS COURSE)

HOW WILL THESE PROCEDURES BE VALIDATED?

- DURING FY 80
- IN SELECTED SCHOOLS (TBD)
- WITH FEEDBACK FROM ALL SCHOOLS
(COMMENTS FROM SCHOOLS VALIDATING
AND
SCHOOLS USING DRAFT CHAPTER 9 (TBP))

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CHARACTERISTICS OF THE INTERPERSONAL TASK

CATEGORIES OF "SOFT-SKILL" TASKS

- INVOLVES INTERACTION BETWEEN TWO PEOPLE
- I. INTERPERSONAL TASKS
 - II. JUDGMENTAL TASKS
 - III. CREATIVE TASKS
- IS INTERPERSONAL BEHAVIOR
- ATTITUDE

bulb

CHARACTERISTICS OF THE INTERPERSONAL TASK

- + INVOLVES INTERACTION BETWEEN TWO PEOPLE
- + IS INTENDED TO INFLUENCE/CHANGE BEHAVIOR,
ATTITUDE OR OPINION

EXAMPLES OF INTERPERSONAL TASKS

- + COUNSEL SUBORDINATE ON WORK PERFORMANCE
- + CONDUCT SALES INTERVIEW (RECRUITING)
- + INTERVIEW PROSPECTIVE EMPLOYEE
- + BRIEF NEWLY ASSIGNED PERSONNEL
- + ESTABLISH INDIVIDUAL PERFORMANCE OBJECTIVES
- + CONDUCT AN INTERVIEW FOR A NEWS/FEATURE STORY
- + COUNSEL A SOLDIER CHARGED WITH UCMJ OFFENSE
(ADVISE CLIENT)

PROBLEMS WITH INTERPERSONAL TASKS

- + INNUMERABLE INITIATING CUES
- + PEOPLE ARE THEMSELVES CONDITIONS
- + INTERNAL CUES VARY INFINITELY, AFFECTING
THE WAY THE TASK SHOULD BE PERFORMED
- + DIFFICULT TO MEASURE CHANGE IN BEHAVIOR,
ATTITUDE, OR OPINION IMMEDIATELY AFTER
TASK PERFORMANCE

CHARACTERISTICS OF THE JUDGMENTAL TASK

- + INVOLVES IDENTIFICATION AND CONSIDERATION
OF COUNTLESS INTERRELATED VARIABLES
- + INVOLVES USE OF INDIVIDUAL LOGIC TO ARRIVE
AT JUDGMENT
- + JUDGMENT CANNOT BE EVALUATED AS WHOLLY
CORRECT OR INCORRECT

EXAMPLES OF JUDGMENTAL TASKS

- + PLAN YOUR DAILY WORK SCHEDULE
- + PREPARE AN ASSESSMENT OF THE HUMAN SITUATION
- + EVALUATE THE ASSESSMENT OF THE HUMAN SITUATION
- + PREPARE A BUDGET
- + APPROVE/DISAPPROVE EXPENDITURES
- + EVALUATE SUBORDINATE'S PERFORMANCE
- + SELECT AN EMPLOYEE FROM AMONG "BEST QUALIFIED"
- + SELECT TASKS FOR TRAINING
- + ASSIGN PRIORITIES TO MISSIONS/TASKS

PROBLEMS WITH JUDGMENTAL TASKS

- + CONDITIONS VARY EXTENSIVELY
- + EACH MANAGER IS UNIQUE
- + EACH MANAGER WORKS WITHIN A UNIQUE
FRAMEWORK OF EXTERNAL INFLUENCES
- + QUALIFIED EVALUATORS WILL DISAGREE
ON THE ADEQUACY OF TASK PERFORMANCE

CHARACTERISTICS OF THE CREATIVE TASK

- + MULTITUDE OF VARIABLES (PURPOSES, CONCEPTS, METHODS, MEDIA, AUDIENCES)
- + CONDITIONS VARY INFINITELY
- + PROCEDURES VARY INFINITELY
- + STANDARDS, FOR THE MOST PART, ARE HIGHLY SUBJECTIVE

EXAMPLES OF CREATIVE TASKS

- + WRITE A MILITARY LETTER
- + WRITE A FEATURE STORY
- + LAYOUT A MAGAZINE/NEWSPAPER PAGE
- + EDIT A PHOTOGRAPH FOR REPRODUCTION
- + EDIT A TASK SUMMARY (SM PAGE)
- + DESIGN A BLANK FORM
- + DESIGN AN INSTRUCTIONAL MODULE
- + WRITE A TV SPOT/PROMOTIONAL ANNOUNCEMENT

PROBLEMS WITH CREATIVE TASKS

- + EVERY CREATIVE PRODUCT IS UNIQUE
- + EVERY REPETITION OF A PARTICULAR TASK IS SOMEWHAT DIFFERENT
- + NO TWO PERFORMERS WILL PRODUCE EXACTLY THE SAME PRODUCT
- + NO KNOWN PROCEDURE WILL ALWAYS PRODUCE AN ACCEPTABLE PRODUCT
- + "EXPERTS" WILL DISAGREE ON THE ACCEPTABILITY OF MANY PRODUCTS

TASK: CONDUCT PERFORMANCE COUNSELING WITH A SUBORDINATE

PERFORMANCE STEPS:

1. READ/REREAD FM 22-100 AND FM 22-101.
2. GATHER DATA ON THE SOLDIER'S ACTUAL PERFORMANCE.
3. COMPARE THE ACTUAL PERFORMANCE DATA WITH THE SOLDIER'S INDIVIDUAL PERFORMANCE OBJECTIVES.
4. DEVELOP A PERFORMANCE-IMPROVEMENT PLAN.
5. SELECT AND SCHEDULE A COUNSELING SITE.
6. SET UP THE COUNSELING SITE.
- * 7. CONDUCT THE COUNSELING SESSION.
8. SCHEDULE THE NEXT COUNSELING SESSION.
9. MAKE A WRITTEN RECORD OF THE SESSION.
10. PROVIDE FOLLOW-ON ASSISTANCE.

* GUIDELINES FOR COUNSELING

- + TRY TO SET THE SUBORDINATE AT EASE
- + CONVEY YOUR PURPOSE--TO HELP THE SOLDIER IMPROVE OR MAINTAIN HIS PERFORMANCE
- + PROTECT THE SOLDIER'S RIGHT TO PRIVACY
- + ASK FOR QUESTIONS/PROBLEMS
- + DEAL WITH SPECIFICS, NOT GENERALITIES
- + DO MORE LISTENING THAN TALKING
- + BE ALERT TO NONVERBAL FEEDBACK
- + AVOID EVALUATING THE SOLDIER'S CHARACTER
- + COMPARE ACTUAL WITH REQUIRED PERFORMANCE
- + WHERE POSSIBLE, DISCUSS PERFORMANCE IN MEASURABLE TERMS--QUANTITY, QUALITY, TIMELINESS, ETC.
- + STRESS POINTS OF IMPROVEMENT, NOT DEFICIENCIES
- + LOOK FOR, AND REMOVE, PERFORMANCE BARRIERS THAT ARE BEYOND THE SOLDIER'S CONTROL
- + DETERMINE IF YOU ARE PART OF THE PROBLEM
- + IF YOU ARE PART OF THE PROBLEM, SEEK WAYS TO CORRECT THE SITUATION
- + SEEK THE SOLDIER'S OWN IDEAS FOR IMPROVEMENT
- + PROVIDE SPECIFIC GUIDANCE FOR IMPROVEMENT
- + REFER THE SOLDIER TO AN APPROPRIATE AGENCY IF HIS PROBLEM IS PERSONAL OR EMOTIONAL

CONCLUSIONS

- + TASK IDENTIFICATION IS RELATIVELY EASY
- + SPECIFICATION OF CONDITIONS IS DIFFICULT
- + SPECIFICATION OF STANDARDS IS DIFFICULT
- + ACCOUNTING FOR ALL POSSIBLE CUES IS IMPOSSIBLE
- + ANALYSIS IN GENERAL TERMS (TYPICAL CUES, BROAD CONDITIONS, VAGUE STANDARDS, GENERIC PROCEDURES) IS POSSIBLE
- + GUIDELINES (DOS AND DON'TS) FOR TASK PERFORMANCE CAN BE DEVELOPED
- + TESTING GENERALITIES IS VERY DIFFICULT
- + SKILLS AND KNOWLEDGES CAN BE IDENTIFIED

USAADS
STANDARD OPERATING PROCEDURES
FOR THE
SELECTION OF CRITICAL TASKS
AND TRAINING SITE

Prepared by:
Training Analysis and Design Division
Directorate of Training Developments
5 April 1979

1. **PURPOSE.** To establish a Standard Operating Procedure (SOP) to be used at USAADS for the selection of critical tasks and training sites. To satisfy the SOP requirement established by TRADOC Regulation 351-4, Job and Task Analysis, dated 9 March 1979.

2. **APPLICATION.** These procedures are applicable to all critical task selection actions undertaken by the Directorate of Training Developments, USAADS.

3. **BACKGROUND.** It is a recognized fact there is no 100 percent correct way of selecting critical tasks for training. The procedures in this SOP represent those most advantageous to USAADS in terms of using available resources and capabilities to produce the best possible listing of critical tasks.

4. **PRECEDENCE.** It is the intent of this SOP to comply with the requirements of TRADOC Regulation 351-4, Job and Task Analysis, and to apply the procedures described in TRADOC Pamphlet 351-4, Job and Task Analysis Handbook. In case of conflict, the TRADOC regulation and pamphlet (cited above) take precedence. Conflicts will be reported to: Director, Directorate of Training Developments (ATTN: Chief, TAD), US Army Air Defense School, Fort Bliss, Texas 79916.

5. **PROCEDURES.**

a. USAADS critical task selection worksheet.

(1) The final task inventory will be listed on critical task selection worksheets. Project analysts/subject matter experts will complete the forms. Judgement entries will represent the consensus of the project analysts.

(2) The worksheet construction is derived from a logic flow chart. When completed the worksheet will produce for each task:

- A tentative decision on task criticality. (Critical: Yes or No)
- A tentative decision on training site. (Resident or Extension)
- A tentative decision on the relationship of the task to collective mission tasks and the Army Training and Evaluation Program, (ARTEP Task: Yes or No)
- A tentative decision on the task as a required wartime training task (WTT). (WTT: Yes or No)

(3) A worksheet annotated with instruction is at Annex A.

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(4) A blank worksheet is at Annex B.

(5) The logic flow chart supporting the decisions derived from completing the worksheet is at Annex C.

b. The Critical Task Selection Board (CTSB).

(1) The purpose of CTSB is to review the data and recommendations submitted by the project analysts and to make informed judgements concerning the criticality, training site, ARTEP, and WTT recommendations developed by the project analysts.

(2) The CTSB will be composed of informed, experienced members. The CTSB will include at least five and no more than eight members. Board members may be drawn from the following sources in the number indicated:

AGENCY	MAXIMUM # OF MEMBERS
- Directorate of Evaluation	(2)
- ARTEP Branch, TADD, DTD	(1)
- Design/SM Branch, TADD, DTD	(1)
- Course Development Division, DTD	(1)
- Directorate of Training	(2)
- MOS incumbents from TOE/TDA units	(2)
- Chief, TA Branch, TADD, DTD	(1)

(3) Project analysts will serve the CTSB as facilitators. In this capacity, responsibilities include briefing CTSB members concerning command guidance, parameters of the CTSB duties and responsibilities, and upon request, an explanation supporting rationale used to support subjective judgements. Additionally, analysts will record sufficient data concerning CTSB members, qualifications and board proceedings to support an audit trail.

(4) The CTSB chairperson will be selected by the CTSB members at the first meeting. To insure freedom of expression, it is important that chairperson allow all reasonable arguments to be heard.

(5) A simple majority will normally resolve disputes arising during CTSB decisions/procedures. Disputes not settled by CTSB will be referred to the Chief, TAD, by the chairperson for arbitration and final resolution.

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(6) At least two weeks prior to first meeting, CTSB members will be provided with completed copies of USAADS critical task selection worksheets concerning the job/MOS under consideration. CTSB member will use this time to individually review (agree/disagree) with the recommendations offered for each task and prepare rationale supporting disagreement(s).

(7) The CTSB will be convened upon request of the Chief, Training Analysis Branch, TAD Division, DTD, USAADS.

c. A flow chart of the complete task selection process is at Annex D. In addition to the events already discussed, it includes necessary preparatory and terminal events.

ANNEX A - Worksheet Annotated with Instructions

ANNEX B - Blank Worksheet

ANNEX C - Logic Flowchart Supporting Decisions

ANNEX D - Flowchart for Complete Task Selection Process

ANNEX E - Glossary of Terms

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General Topics	Specific Topics
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WASK SELECT ON M. KSHET
PREPARED BY: T/D, T/D, USANDS
3 APR 72

MARK 'X' FOR YES
MARK 'O' FOR NO

28. d. WORKING PERFORMANCE
e. TECHNICAL PERIODING
f. CONCEPT OF EFFICIENT PERFORMANCE
g. TAKE IN ADVANCE
h. TASK LEARNING DIFFICULTY
i. TASK FREQUENCY

UNMARKED BOXES
ARE NOT CRITICAL
DISCRIMINATORS
MAY BE EITHER
AN "X" OR "O"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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INSTRUCTIONS

COI 45 for a new MOS using

MS using available data.

1. Make all judgements based upon working not peacetime conditions.

File No.: Use as optional.
May be used to sequentially number tasks.

Task Title and/or
ISA Code self explanatory - see
examples.

33 Column b: Task Code - Tr. No.
Self explanatory - not exam

COLLINS: MOS 1001 explicit
see example.

Column d: No. 1-11.

EX-15-470-005 "I have CCA?"

d. A description of each numerical delineation (1-6) is provided in each number column. Use descriptions to assist in assigning values.

e. See examples.

f. If a and b above are not feasible do not use No. Perf. or Time Spent Perf. as a criteria. Use COIP, TWT, TLD and TP.

g. If a and b above are not feasible do not use No. Perf. or Time Spent Perf. as a criteria. Use COIP, TWT, TLD and TP.

h. If Columns "d" & "e" are blank, enter "0".

i. Answer/enter an "x" for YES if value is equalled or exceeded. Answer/enter "0" for NO if less than stated value.

be used as an "X" or as a "0".
In this example, answer XXXXXX
and matching line XXX--- in the
truth table are shown connected
by the line which leaves from
the left of answer XXXXXX, then
up and right to XXX--- in the
truth table. Similarly, the
answer for line No. 002, 00XXX
is connected to the matching line
0-XXX in the truth table.

ARTID, and XLT: Answer for Question: Task, Site Selection ("X"=YES "N"=NO) ARTID, and XLT. Answers are located

in one block above the columns and on the matched line in the truth table.

W3 Column Task Performance Time:
Enter observed or predicted task performance time in hours and hundredths of hours.

14 Columns C-30 D:SMALL, CTS

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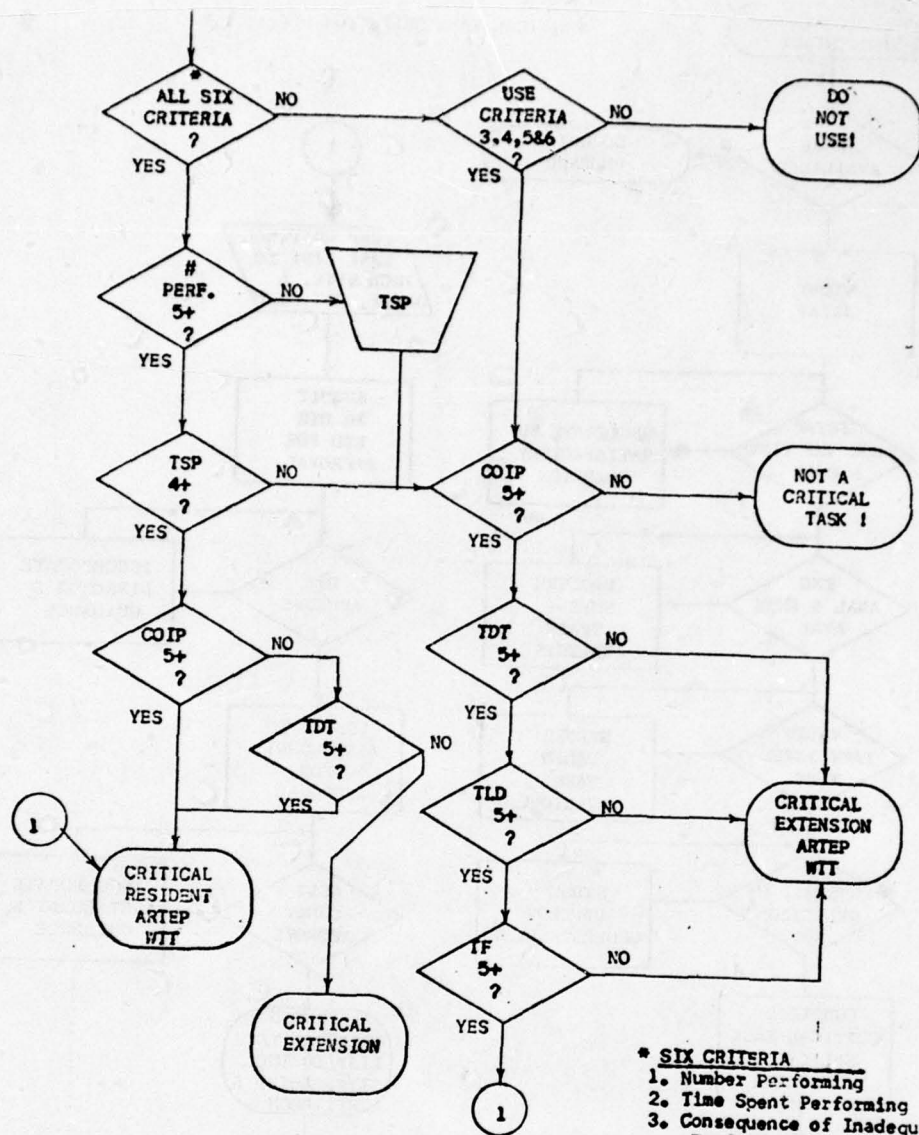
ANNEX 3 to USAADS SOP for selection
of critical tasks and training sites.
TASK SELECTION WORKSHEET
PREPARED BY: TAD, DTD, USAADS
3 APR 79

* MARK "X" FOR YES
MARK "O" FOR NO

** 1. NUMBER PERFORMING
2. TIME SPENT PERFORMING
3. CONSEQUENCE OF INADEQUATE
PERFORMANCE
4. TASK DELAY/TOLERANCE
5. TASK LEARNING DIFFICULTY
6. TASK FREQUENCY

UNMARRIED BOYS
ARE NOT CRITICAL
DISCRIMINATORS
MAY BE ETTED
AN "X" OR "O"

[illegible]

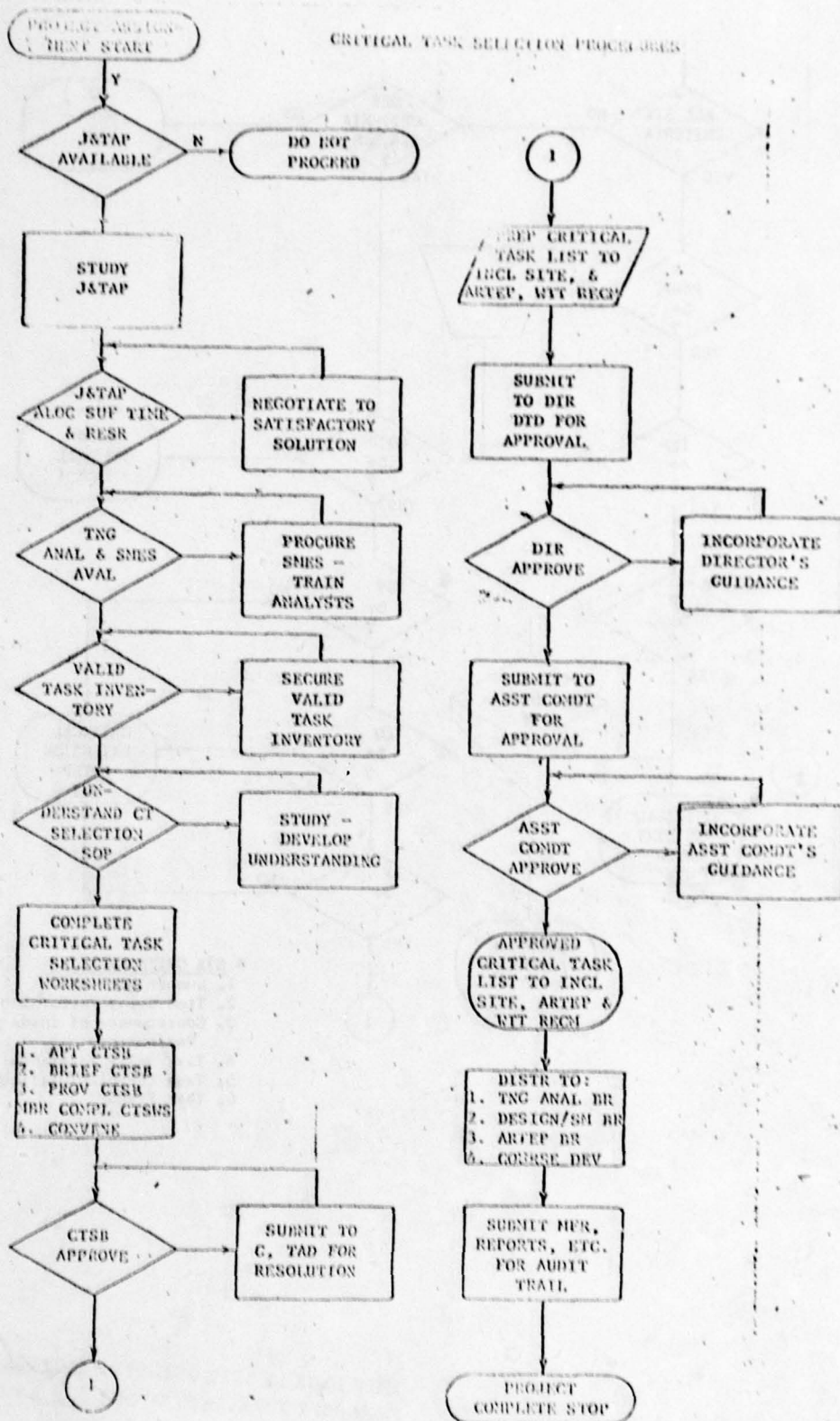


*** SIX CRITERIA**

1. Number Performing
2. Time Spent Performing
3. Consequence of Inadequate Performance
4. Task Delay Tolerance
5. Task Learning Difficulty
6. Task Frequency

CI
7-7

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GLOSSARY

CONSENSUS GROUP

A group of personnel, selected for their experience and knowledge of the job and training technology, brought together to organize, analyze, and record task related data.

CONSEQUENCES OF INADEQUATE PERFORMANCE

This criterion addresses the results of inadequate (deficient) performance of a task when the performance is needed. Inadequate performance may result in injury to personnel, loss of life, or damage to equipment. Inadequate performance could have a serious impact on mission, the operation, the product, the equipment, or the operator. The delineations and weighting are:

- 6 - Most Serious (disastrous) Consequences
- 5 - Serious Consequences
- 4 - Moderately Serious Consequences
- 3 - Minimal Consequences
- 2 - Trivial Consequences
- 1 - No Consequences

CRITICAL TASK

A critical task = a soldier's manual task = a task selected for training (regardless of site selection). It is a task which is essential for: accomplishment of the unit's mission or successful individual job performance or survivability in a combat situation.

CRITICAL TASK SELECTION BOARD

A board composed of informed, experienced members convened to review the task inventory and the task criticality, training site, ARTEP, and WTT recommendations submitted by the training analysis/subject matter consensus group. When the board does not agree with the recommendations submitted to it, it will provide alternative recommendations.

NUMBER PERFORMING

This criterion is the number of job incumbents who perform the task. The delineations and weighting are:

- 6 - Majority
- 5 - Many
- 4 - Some
- 3 - Few
- 2 - Minimal Number
- 1 - None

TASK

A task can be loosely defined as the lowest level of behavior in a job that describes the performance of a meaningful function in the job. A task can have the following characteristics:

- a. A task is a statement of a highly specific action.
- b. A task has a definite beginning and end.
- c. A task is performed in a relatively short period of time.
- d. A task is measurable.
- e. In the eyes of the job holder, a task is performed for its own sake.

TASK DELAY TOLERANCE

Task delay tolerance is a measure of how much delay (time) can be tolerated between the time the need for performance of the task (cue) becomes evident and the time actual performance must begin. The delineations and weighting are:

- 6 - Least Tolerant (Task must be performed immediately whenever it is required.)
- 5 - Minimal Tolerance
- 4 - Moderately Tolerant
- 3 - Tolerant
- 2 - Very Tolerant
- 1 - Extremely Tolerant (There is very little need for immediate performance.)

TASK FREQUENCY

This criterion addresses how often the task is performed. The delineations and weighting are:

- 6 - Several Times Daily
- 5 - Once Daily
- 4 - Once a Week
- 3 - Once or Twice a Month
- 2 - Infrequently
- 1 - Never Performed

TASK LEARNING DIFFICULTY

This criterion addresses the time, effort and assistance required to achieve task performance proficiency. The delineations and weighting are:

- 6 - Extremely Hard to Learn (Training Essential)
- 5 - Hard to Learn
- 4 - Somewhat Hard to Learn
- 3 - Easy to Learn
- 2 - Very Easy to Learn
- 1 - Common Knowledge (No Training Required)

TIME SPENT PERFORMING

This criterion is the amount of time the job incumbent spends performing this task in relationship to other tasks. The delineations and weighting are:

- 6 - Very Much Above Average Time
- 5 - Above Average Time
- 4 - Slightly Above Average Time
- 3 - Average Time
- 2 - Below Average Time
- 1 - Very Much Below Average Time

TRAINING SITE SELECTION

The determination as to where a critical task will be trained: Resident or non-resident (extension).

WARTIME TASK

A task which is performed in combat.

JOB DATA DISPLAY

96C INTERROGATOR

DUTY: INTERVIEWING

**PAUL H. MADARASZ, Ph.D
Education Specialist
ATFL-TD-JS**

KEY TO ABBREVIATIONS

VP - Verb phrases

VP (inf) - Verb phrases with infinitive

NP - Noun phrases

TA - Time adverbs

SA - Spatial adverbs (locative)

AQ - Adverbs of quantity

I. Interviewing	Sources/Participants/ Stimuli	Roles	Modes
<p>1. Establish Rapport</p> <p>a. Greet interviewee</p> <p>b. Make Introductory remarks.</p> <p>c. Carry on limited small talk.</p> <p>2. Conduct Business</p> <p>a. Establish identity of interviewee.</p> <p>b. Identify himself in his official capacity.</p> <p>c. Explain the nature of interview.</p> <p>d. Ask questions on topics selected.</p> <p>e. Take notes of answers.</p> <p>f. Ask for further details, explanations, clarifications as needed.</p> <p>3. Terminate Interview</p> <p>a. Thank for the cooperation.</p> <p>b. Set up new time, location for the next interview (if applicable).</p> <p>c. Say good-bye.</p>	<p>1. Ethnic origin: - ethnic Germans</p> <p>2. Legal Status: - refugees - deserters - political dissidents</p> <p>3. Place of origin: - East Germany - The Soviet Union - East European countries</p> <p>4. Languages/dialects spoken: - East German - Volga German dialect - Other German dialects of Eastern Europe - Standard German (Hochdeutsch) - Russian, Polish, and other Eastern European languages</p> <p>5. Socio-political background:</p> <p>a. Social Status - farm workers - factory workers - members of intelligencia - members of former social classes</p> <p>b. Political affiliations - Communist Party - Communist Youth Organizations - Trade Unions - Non-members</p> <p>6. Level of education/training - from elementary to post doctoral education - all types of vocational training</p> <p>7. Civilian occupations - farmers (agricultural laborers) - factory workers - artisans - managers - government employees - professionals - artists</p>	<p>1. Role set identity - individual to individual - adult to adult - male to male - male to female - female to male - young to old - old to young - same age</p> <p>2. Types of Role</p> <p>a. psychological roles - equality - neutrality - empathy - sympathy - cooperation - persuasion - direction - suspicion</p> <p>b. Social roles - stranger to stranger - official to private person - friend to friend, etc.</p>	<p>1. Linguistic Interaction</p> <p>a. Types - face-to-face communication - over the phone</p> <p>b. Language skills required - conversational language *speaking(40%) *listening(60%) *note taking</p> <p>2. Cultural interaction</p> <p>- use of "body language"</p> <p>- use of culturally appropriate expressions</p>

CONDITIONS		CRITERIA/STANDARDS
Setting	Dimensions of Performance	
1. Spatial arrangements	1. Size of utterances	1. Establish Rapport
a. Location: -office in barracks -Office in other locations	a. Questions asked by interviewer -from short phrases to 1-2 sentences	Expected Performance: Interviewer will greet source, make introductory remarks and carry on small talk while using language features and "body language" appropriate for the source's official position/rank, social status, level of education, sex and age.
b. Unusual circumstances NONE	b. Answers given by interviewee -from phrases to discourse (short paragraphs)	Criteria: 1. Source will comprehend all utterances of interviewer without need for repetition.
2. Temporal factors	2. Range of language use	2. Interviewer will use the appropriate language registers and styles all times.
a. Peacetime	a. Registers -formal (mostly) -informal	3. Interviewer will not pause longer than normal for his/her natural speech habit while addressing and/or greeting the source and while making introductory remarks or carrying on small talk.
b. Time of job performance: -all hours of the day	b. Styles -casual/colloquial -conventional -deliberative/sophisticated	4. Interviewer will select the appropriate functions/notions in support of the topics discussed, and the language exponents appropriate for the setting and psycho-social roles required by the communicative tasks (functions/notions).
c. Duration: -As much time as required (Usually 2-3 hours sessions repeated as needed)	c. Special features -professional/military jargon -up-to-date language -slang expressions -dialects (only for comprehension)	2. Conduct Business
Frequency: -several times weekly		Expected Performance: Interviewer will obtain all data of interest to US agencies.
3. Psychological factors	3. Complexity	Criteria: 1. Source will comprehend all pre-prepared utterances pertaining to the identification of source, explanation of the nature of interview, questions on topics etc., without need for rephrasing or repetition.
Atmosphere -friendly -cooperative -relaxed -strained -tense	a. Sentence construction -simple to highly involved -loose to highly organized	2. Interviewer will deliver all pre-prepared utterances without pause.
	4. Speed of communication -Production by source is natural to the individual -Production by interviewer is slow natural-to natural	3. Interviewer will not pause longer than 5 seconds in a 60 second segment while delivering spontaneous utterances.
	5. Note taking -Driven by the utterances of the interviewee -English and/or Target language are used	4. Source will comprehend 9 out of 10 unprepared (spontaneous) utterances without need for repetition or rephrasing.
	6. Prior preparation -sets of questions, statements may be prepared.	

Setting	Dimensions of Performance	
	<p>7. Use of reference materials -use of dictionary and maps is permitted.</p>	<p>5. Interviewer will comprehend 8 out of 10 utterances of source without need for repetition or rephrasing. Length of utterance will not exceed 50 syllables.</p> <p>6. Notes will contain all significant data in answer to the standard questions such as who does, what, where and when, etc.?</p> <p>3. Terminate Interview</p> <p>Expected Performance: Interviewer will express thanks and appreciation, set new time and place for the continuation of interview and make closing remarks while using language features and "body language" appropriate for the source's official position/rank, social status, educational level, sex and age.</p> <p>Criteria: 1. Source will comprehend all utterances of interviewer without need for repetition.</p> <p>2. Interviewer will use the appropriate language registers and styles all times.</p> <p>3. Interviewer will not pause longer than normal for his/her natural speech habit while terminating the interview.</p> <p>4. Interviewer will select the appropriate functions/notions in support of the topics discussed and the language exponents appropriate for the setting and psycho-social roles required by the communicative tasks (functions/notions).</p>

CONTENT DOMAIN		NOTES
General Topics	Specific Topics	
<p>1. Establishes Rapport</p> <ul style="list-style-type: none"> - living conditions in West Germany - family - health and well being - life in general - hobbies, pastimes - etc. <p>2. Conduct Business</p> <ul style="list-style-type: none"> - personal history <ul style="list-style-type: none"> + names + addresses + exact dates + jobs + functions + subordination + education certificates, diplomas, degrees + training + research activities + party membership + work setting + place of work + product + productivity + value of plant, work place + interrelationship in his work place + morale - military background <ul style="list-style-type: none"> + ranks + experiences + training + supervisors + etc. 	<p>1. <u>Order of Battle</u></p> <ul style="list-style-type: none"> - weapons <ul style="list-style-type: none"> + parts + functions + ammunition + distribution + size (caliber, etc.) - equipment <ul style="list-style-type: none"> + vehicles + radios + other communication equipment + engineers' equipment, etc. + armor + artillery - location <ul style="list-style-type: none"> + barracks + camps + sites, etc. - training (up to regiment) <ul style="list-style-type: none"> + types + methods + field exercises, etc. - Civil Defense <ul style="list-style-type: none"> + equipment + training + morale + discipline - warehouses - ammo dumps(location, size, etc.) - chemicals (gases) - biological agents <p>2. <u>Military geography</u></p> <ul style="list-style-type: none"> - terrain features <ul style="list-style-type: none"> + cities, rivers, etc. - new constructions of all types <ul style="list-style-type: none"> + size + quality, etc. + roads + railroads, + new streets in cities + industrial plants - agriculture crops <ul style="list-style-type: none"> + yields, etc. - power plants <p>3. <u>Socio-political Topics</u></p> <ul style="list-style-type: none"> - organization of the government - the Communist Party - geo-political considerations - offices (mil., civ) - office holders - recent history - current events - living standards <ul style="list-style-type: none"> + wages and prices + availability of goods + money system 	<p>1. The handbooks on each four areas should be consulted for further details on topics.</p> <p>2. Proper phrasing of questions is vital, therefore, prior preparation is essential for each topical area to be discussed.</p> <p>3. Formulating unrehearsed questions for further probing is also a requirement. It is a more difficult task because the interviewer must be able to comprehend the oral input of the source.</p> <p>4. The language registers, styles used must fit the socio-educational level of the interviewee. It is a delicate matter; therefore special attention should be given to it during prior preparation, and also in training.</p> <p>5. Answers and statements by the interviewee are highly varied in style, dialects used and levels of sophistication. They, therefore, constitute a real challenge. For this reason, aural comprehension should be stressed during training in the high priority topical areas.</p> <p>6. Personal documents are often handwritten. Training in reading handwritten notes is essential.</p> <p>7. Knowledge of the econo-political systems, including current list of important office holders of East Germany (the Soviet Union, etc.) is essential. General knowledge of recent history, geography, the educational system, and other "area background" subject matters are also important.</p>

General Topics	Specific Topics	
	<p>3. Socio-political Topics cont'd</p> <ul style="list-style-type: none"> <li>- unions <li>- kolkhoz <li>- private sector <li>- etc. <p>4. Science and Technology</p> <ul style="list-style-type: none"> <li>- scientific research <ul style="list-style-type: none"> <li>+ weapon systems <li>+ equipment <li>+ biological/medical research <li>+ psychological warfare <li>+ etc. <li>- technological data <ul style="list-style-type: none"> <li>+ engineering <li>+ production data <ul style="list-style-type: none"> <li>o industry <li>o agriculture <li>o communication systems <li>etc. 	

COMMUNICATIVE FUNCTIONS		
COMMUNICATIVE TASKS	LANGUAGE EXPONENTS	
	Productive	Receptive
1. Perform official/social interaction	Good morning, day, afternoon, evening Hi, Hello	See "Productive"
-Greet formally/informally		
-Introduce yourself, others	I am +NP My name is +NP This is +NP He/she is +NP They are +NP Pleased to meet you. Nice to meet you. What is your name? Who are you?	See "Productive"
-Open conversation	- VP+ glad you came. -VP+ glad you've accepted our invitation.	-My pleasure... -I am glad to be at your service. -I hope I can be of help. -Thank you, I'm fine. -Everybody is fine. -My +NP is sick.
-Carry on small talk by inquiring about	-How are you today? -How is your family? (wife, sons, daughters, etc.) -How do you feel today? +Are you healthy? +Are you sick?	Yes, I am healthy. Yes, I am sick I don't feel well today.
+health and well being		
+Living conditions	-How do you like your apartment? +Is it big enough? +Is it comfortable -Do you have problems? +with neighbors +with the landlord etc. -Can I help you in any way? -How do you like it here? +the people +the weather -What do you do for relaxation? +Do you play . tennis . golf . soccer etc. -Do you watch TV? +What are your favorite programs? +Do you watch soccer games? +Do you watch American programs? -Do you play chess? +How good are you at it?	-My apartment is +big enough +not big enough for my family +It is comfortable but not big enough -I have (no) problems with the+landlord +neighbors -Yes, you could do me a favor: +please talk with the landlord. -I need a new +stove +refrigerator +carpet etc. -please call my neighbor and tell him that +the plays the music too loud. -I like it here very much +people are .friendly .helpful -I don't like it too much. +I have no friends. +people are indifferent. -The weather is +nice +too hot

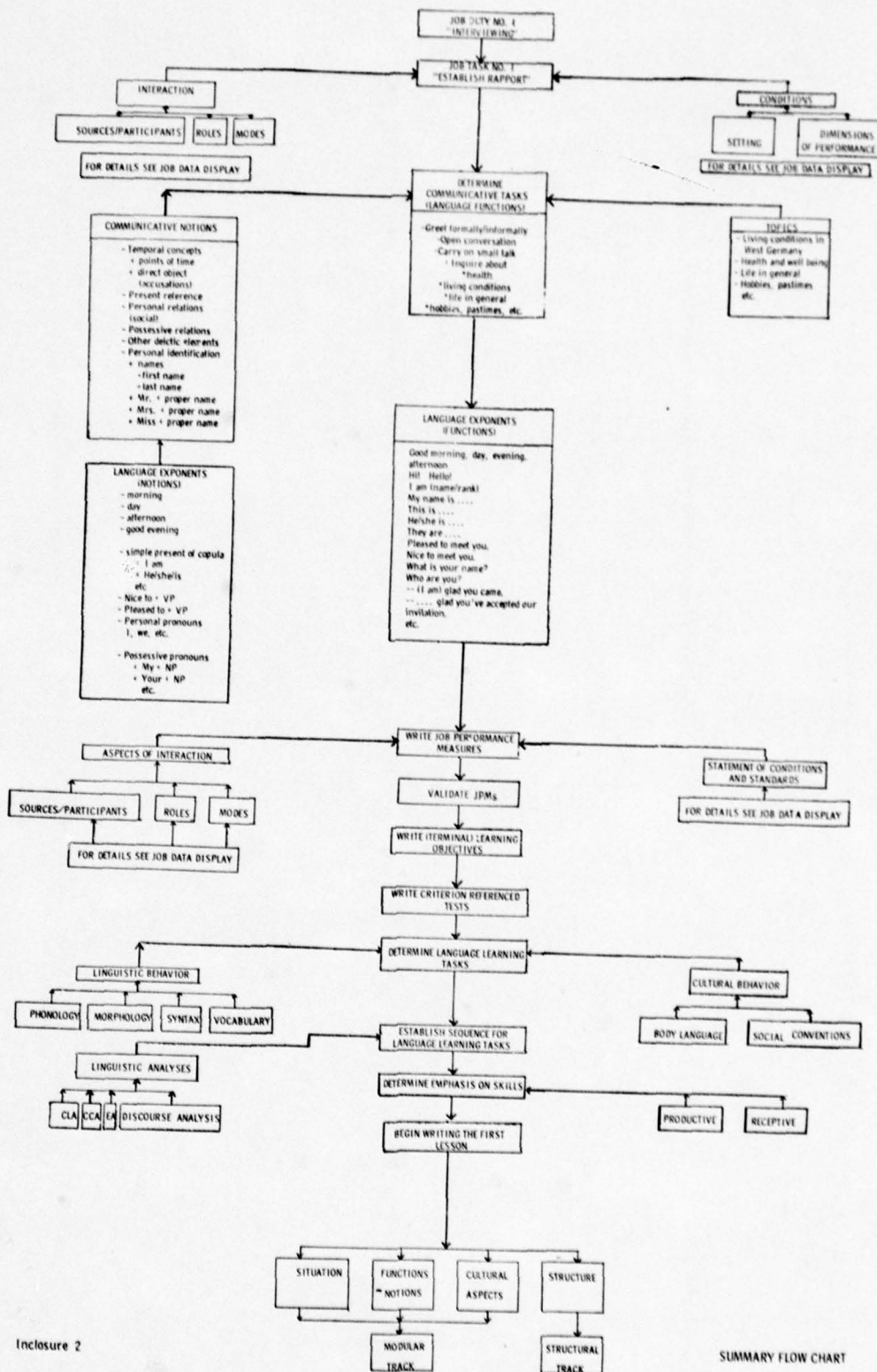
COMMUNICATIVE FUNCTIONS		
COMMUNICATIVE TASKS	LANGUAGE EXPONENTS	
	Productive	Receptive
		+too cold +it rains a lot. +there is much sunshine -I play +tennis +soccer etc. -I swim a lot -I watch TV very much -I like the sport programs -I play chess every day +I play chess well.
2. Manage interview		
-Identifying persons +ID card No. +names	-Your name is +NP -Your rank is +NP -Your official title is +NP -You are +NP...(Name) -You are +NP...(trade, profession, occupation)	My name is +NP My ID No. is + AQ. My rank is + NP My title is + NP I'm +NP I'm +NP (trade, profession, etc.)
+locations	-You are from + SA	I'm from + SA
+addresses	-You were born + SA -You lived in + SA -You lived in +street +No + AQ -from +TA to +TA -during +TA (year, month...) -for +TA (month, year)	I was born at/in + SA I lived at/in + SA My address was + SA
+time, duration		from +TA to +TA during +TA for +TA
-Explaining +the nature of interview	-It is an interview, not interrogation -You are under no obligation to say anything +you are not obliged to +VP -you may volunteer information.	I understand Yes, I was told about that, too.
-Suggesting a course of action +procedures	-I'll ask you some standard questions first.	I would be more than glad to cooperate.
-obtaining cooperation	-Are you now clear about the nature of the interview? -Please answer the questions to the best of your ability. -Next, I will have some detailed questions on topics you are most familiar with. -The information you have on some of the topics may be very valuable to us. -We would appreciate very much your full cooperation -I wish (want) to remind you that	Please, go ahead. I will answer them if I can. Yes, I am. O.K. It's fine with me. Please, go ahead. I will answer them if I can. I certainly hope so.
-Reminding		You are welcome. Naturally, if I am uncertain about something,

COMMUNICATIVE FUNCTIONS		
COMMUNICATIVE TASKS	LANGUAGE EXPONENTS	
	Productive	Receptive
-Requesting cooperation	+answer questions only if you are sure of your facts. -You should not +VP +NP -You must not +VP +NP -Don't +VP +NP -I request your +help +cooperation -I know you have valuable information. Please +help us +cooperate with us -Would you +VP -Could you +VP -Can I have your cooperation? -Would you be so kind to +tell me +inform me	I will tell you so. You got it. I'll fully cooperate. -More than glad to +VP -Naturally, NP +VP
3. Seek factual information.		State factual information.
-Asking questions on topics pertinent to source's background. (see list of topics)	-Interrogative sentences +Yes/no questions. +Sentences with question words (who, when, what? etc.) +Declarative sentences with question intonation. +Question tags (You are not afraid, are you?) -What do you mean by that? -What did you say? -Did you say (that) +VP -Could you, please, clarify this point. -What was the name again? -What is the name of that town? -Could you spell them for me. etc.	
-Asking for clarification		-I mean what I said. -What I wanted to say is + VP. -In other words +NP +VP -Yes, you are correct. -Yes, I said that -Exactly. -I'll try to clarify it
-asking for details	-Could (would) you, please extend on that?	-The name mentioned was +NP -Yes, I'll spell them for you A as ... B as ... -Certainly. -I would be glad to +VP -Definitely.

COMMUNICATIVE FUNCTIONS		
COMMUNICATIVE TASKS	LANGUAGE EXPONENTS	
	Productive	Receptive
4. Express/inquire about intellectual attitudes.	-Could we go into more details on that?	-Just ask any questions you want.
	-Do you have more detailed information? -Who has more detailed information on this topic?	-I did not think of that. -Now, as you mentioned it, I recall +VP. -An acquaintance (friend) of mine worked in this field.
-agreement	-I agree That's right Of course Certainly I go along +PP I could not agree more. I share your +NP We are in basic agreement It is so I can +VP (inf.) He may +VP (inf.)	Same as "Productive"
-disagreement	-No. -I don't agree -I don't think so. -That's incorrect. -You are mistaken. -You are wrong.	
-certainty/uncertainty -possibility/impossibility -denial/confirmation -belief/opinion		
5. Express/inquire about emotional attitudes.		
-pleasure/displeasure -satisfaction/dissatisfaction -approval/disapproval -difficulty/ease		
NOTE: The full catalogue will contain all functions pertinent to the job		

COMMUNICATIVE NOTIONS

General Notions	Language Exponents	Content-specific Notions	Language Exponents
1. Temporal concepts - points of time - direct object	- morning - day - afternoon - evening - good morning		
2. Present reference	- simple present of copula + I am + He/she/is etc.		
3. Personal relations (social)	- nice to + VP - please to + VP - personal pronouns I, we, etc.		
4. Possessive relations	- possessive pronouns + my + NP + your + NP etc.		
5. Other deictic elements	- demonstrative pronouns + This, these + That, those - interrogative pronouns + Who, when? etc. - independent relative pronouns + What - definite and indefinite articles the, a(n)		
6. Personal identification - names + first name + last name + initials - Mr. + NP(proper name) - Mrs. + NP(proper name) - Ms + NP(proper name) - Terms of address if no proper name is used. - Letters of the alphabet - to call (to refer to by name of) - to be called - rank + Sergeant + Officer + Lieutenant + Captain etc.	- Peter, Paul, etc. - Jones, Smith, etc. - W. R.; E. etc. - This is Mr. Paul Jones - This is Mrs. Jones - This is Mr. Rose Bird - Sir, Miss, - Monsireur - Madame - Fräulein etc. - Please spell your name - a, b, c, etc. - What is the last letter? - They call him Pete - Pete - I am Capt Joseph Rand - He is Sgt Jim Butler etc.		



Inclosure 2

SOFT SKILL SEMINAR PRESENTATION

DEFENSE INFORMATION SCHOOL TEAM

GS-11, Martha Gan
CPT Gary Pittman

Job Task Analysis v. Task Analysis

Presentation Outline

1. DINFOS Perception of a Soft Skill.
2. Job Task Analysis v "Task Analysis"
3. Implications for Exportable Instruction.
4. Implications for Resident Instruction

I. Introduction

Here we presented our attention getter the Hardware

"Critical Task Analysis"

I. What do the terms "hard" and "soft" refer to?

The terms hard and soft are used loosely in military training and it has been difficult for us to come up with an operational definition based upon common usage.

At DINFOS we focus on the word SKILLS. We talk about hard and soft skills. Not MOS, not duty or job, not tasks but skills.

A task can, and in fact usually does consist of both hard and soft skills.

In Draft TRADOC Circular 350-3 skill is defined as - the mastery/proficiency of a technique, the ability to use knowledge in the execution or performance of a learned action.

Webster's defines skill in two ways:

A. The ability to use one's knowledge effectively and readily in execution or performance.

B. Dexterity or coordination especially in the execution of learned physical tasks.

Both of these definitions are important to analysis.

The smallest result of job task analysis is an element or step.

an element is an action or step

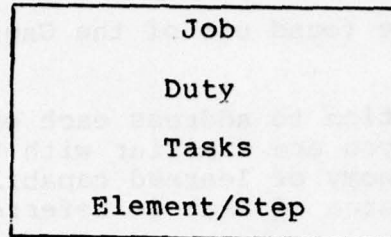
a skill is the ability to perform an action.

When an element is physical (involves muscular movement) the element and the ability to perform that action are the same for instructional purposes.

When an element is not physical it is necessary to analyze further.

II. Job Task Analysis v "Task Analysis"

Quickly show slide reflecting a job task analysis.



Gagne suggests that there are 3 types of task analysis. They are: (slide)

1. Information Processing Analysis
2. Task Classification Analysis
3. Learning Task Analysis

Each may be important to analyze and use job tasks.

1. Information processing is a flowchart or listing out of the mental operations or steps required by the learner to perform the job task.

2. Task Classification: The application of learning theory and use of taxonomies to determine level of learning and identify prerequisite steps (heirarchies).

Let's review type educational taxonomies: (slide)

1. Cognitive Domain (Bloom)
2. Affective Domain (Karthworl)
3. Psychomotor Domain (Kibler)
4. Taxonomy of Learned Capabilities (Gagne & Briggs)

Each of these taxonomies suggests that learning occurs at various levels, and that in many cases learning at one level is required to learn the next level (heirarchies).

At DINFOS we have found use of the Gagne/Briggs taxonomy most useful.

We have no intention to address each of the domains listed above. Most of you are familiar with them. We do wish to look at the taxonomy of learned capabilities because we apply it to the area of what is referred to here as "soft skills."

What is a learned capability?

- An outcome of instruction.
- Learning outcomes in the various domains.

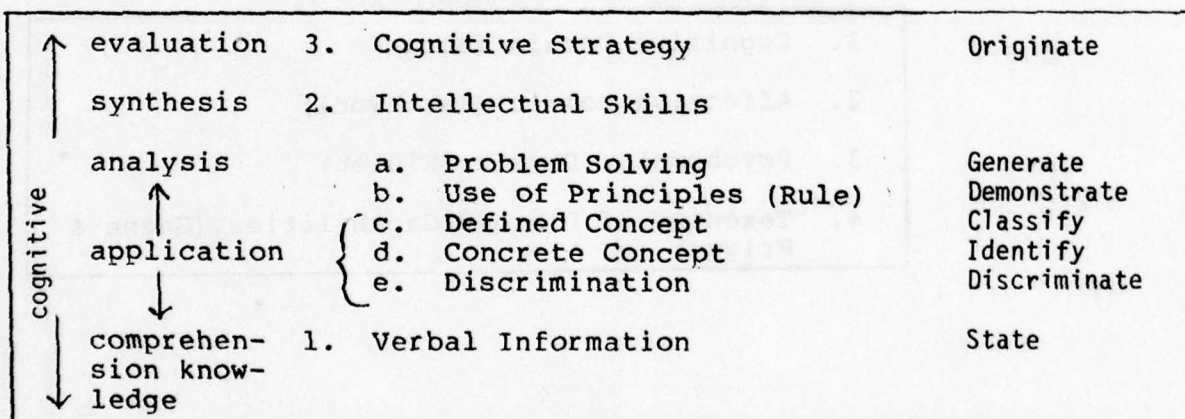
Let's look at the taxonomy:

(slide of G&B Taxonomy)

- | |
|------------------------|
| 1. Verbal Information |
| 2. Intellectual Skills |
| 3. Cognitive Strategy |
| 4. Attitudes |
| 5. Motor Skills |

These are the domains. This chart does not reflect or suggest a heirarchy.

(Slide of 1-3)



2 of 3

CLASSIFICATION		Descriptive VERB
AFFECTIVE	4. ATTITUDE	chooses
	a. Characterization by value	
	b. Organization	
	c. Valuing	
	d. Responding	
	e. Receiving	

3 of 3

PSYCHOMOTOR	5. MOTOR SKILL	executes
	a. Speech behaviors	
	b. Nonverbal communication sets	
	c. Finely coordinated movements	
	d. Gross body movements	

A look at these three domains does suggest a heirarchy. This chart says that you must have verbal information in order to perform intellectual (mental) skills. Having sets of mental skills allows the learner to originate novel and unique solutions to many situations. This is a cognitive strategy.

If we can identify a task as a motor skill we can apply analysis techniques outlined in Chapter 8.

But if a task requires many mental operations to get to the observable performance, we have a task that falls into the domain of intellectual skills.

Gagne suggests that intellectual skills lend themselves to learning task analysis. Mickey will talk about this.

One additional point. Gagne uses a fixed set of descriptive verbs to identify the learned outcome at each level of each domain. (See Slide).

Learning Task Analysis.

Once a task element has been categorized into the various types of learned capabilities, further analysis may or may not be required.

If the category is psychomotor an analysis of the steps required to perform a task is sufficient for instructional purposes. In this case the learned outcome is the ability to perform the sequence of muscular movements required by the action. This ability is acquired by practice.

For "mental" task or elements the performance implies that the required mental processes are being performed. In other words since we can not see these mental processes we infer from observable actions or products that they are performed. These mental processes are internal states called capabilities.

To make it easier to identify and describe these internal states or capabilities Gagne and Briggs (1974) suggested that standard verbs be used. This was briefly discussed by CPT Pittman.

For those elements which fall into the category of intellectual skills it is possible to identify prerequisite capabilities required for the individual to learn a task. This process is called LEARNING ANALYSIS.

It is generally accepted that previous learned capabilities support new learning. Ex. Before a child can learn to read he/she must be able to recognize the different letters of the alphabet.

If we are with intellectual skills the learning analysis will establish a hierarchy (ordered series) of subordinate capabilities which must be learned before a specific outcome can be learned.

Gagne proposes that the prerequisite capabilities are identified by asking the question.

"What skill should the learner already know how to do and be able to recall, when faced with the task of learning the new skill; the absence of which would make it impossible for him to learn the new skill?"
Gagne (1968)

For example:

Task: Shoot black and white photographs with a 35mm SLR camera.

One of the elements might be

Set the f-stop ring

some of the requirements for performing this element might be:

1. Determine required f-stop
2. Locate f-stop ring on camera
3. Turn the f-stop ring to the f-stop determined in Step 1.

The first capability is an intellectual skill. Determining the required f-stop is problem-solving, applying rules about how light interacts with film, the relationship of depth of field and aperture size and other rules all supported by concrete and defined concepts. These learned capabilities are essential for adequate performance but they are not actions in and of themselves.

A learning analysis would identify a hierarchy of prerequisite capabilities which must be acquired by the learner before the desired learning outcome can be achieved.

To summarize:

The analysis of tasks into procedural steps (job task analysis) is not the same as learning analysis which identifies the prerequisite capabilities required to learn a task. Learning analysis asks the question "What must the learner have acquired by previous learning, and be able to recall when the new learning is undertaken?"

The identification of prerequisite learned capabilities aids us in designing and evaluating training in several ways. Some of those are:

1. It gives us a guide for sequencing instruction - what must be taught so other things can be learned.
2. Helps to identify entry level skills required before undertaking a block of instruction.
3. Allows us to design instruments which evaluate the learners' entry level skills.
4. Provides us with a systematic approach for training intellectual skills.
5. Allows us to identify gaps in capabilities which may be causing learning failure.
6. Differentiates between essential knowledges and skills and the "nice to knows."

III. Implications for Exportable Training

Task analysis at DINFOS is used to design and evaluate both resident and exportable training materials. Because we have a small DTD the analysis and design functions are usually performed by the same closely situated group of people. This makes it easy to transition between analysis and design.

TEC

It has been a common occurrence to get a call from our TEC civilian contractor asking us to provide a SME for their task analysis. It is emphasized that the SME should be performing the task so they can observe.

That's all well and good. But take a task like:

Write a sports story observing a SME performing this task would result in:

1. Put paper in type writer.
2. Line up paper

.....

This would look like a 71L task not a journalist task.

The important thing in this case is not a list of observable action, but the mental processes employed by the SME in determining what words, in what order are put on the paper. Writing a news story requires the use of a cognitive strategy. An internalized method of pulling together all the intellectual, attitudinal and psychomotor skills required to produce an acceptable story.

If the TEC contractor fails to identify and teach these required learned capabilities the novice learner will fail to perform the task. The learning outcome will not be reached.

EPMS

The same problem occurs with EPMS products, particularly soldier's manuals. The standard format of performance steps with action verbs does not always fit the type of task we deal with in public affairs. We are always asking ourselves how we can incorporate much of the "soft" material we feel is necessary but does not fit the format.

Remember that the Soldier's Manual is a training aid. If we know that there are competencies required (skills, knowledges and attitudes) for the learning of a task. Why can't we include those things in the manual.

Since sometimes specific actions do not adequately represent the test we should be able to include capabilities in our evaluation of a task. But we can not test anything which is not in the manual.

For many different reasons we have managed to insert some of this "soft" stuff through the backdoor... but why should we have to "sneak" in important task components. If the format does not work the format should be changed!

IV Implications for Resident Instruction

Use of taxonomies, task analysis and descriptive verbs has been very helpful in resident instruction. It helps to bring the instructor back to the job task analysis, and helps to point out systematic sequencing and verbalization of instruction.

(Slide Example of a Revised POI OBJ)

Instructors, in many cases, have lost sight of the fact that lesson plan objectives were based upon job tasks. Classes consist of task elements and skills - that relate to tasks and duties - which require the student to organize and transfer to written tests and PE's - which further requires the student to transfer to the job.

General subject areas and resources drive the sequencing of instruction. This falls to capitalize on learning theory - use of educational taxonomies and instructional system design.

INTRODUCTION TO SERVICE PUBLIC AFFAIRS PROGRAMS (USA UNIQUE)

Objectives:

Given participation in a lecture/conference and applicable Army Regulations and ESO directives, the student will solve Army public affairs problems described in situational In-Box exercises. Learning is measured in practical exercises.

FD.10702

2C/PE2

2C/PE2

2

2L

References:

Dept of the Army Reg 360-5, 360-61, 360-81.

Dept of the Army Pam 360-5.

Dept of the Army Field Manual 101-5: ---

Public Affairs Handbook, Chapter 11.

PROPOSED PERFORMANCE OBJECTIVE:

Given class introductions and information concerning "Army Unique" instruction, DA Public Affairs organization, the defined concept of Public Affairs and its functional areas, and a bibliography of Public Affairs related regulations; students will be able to discriminate among fellow students by conducting functional interpersonal relationships using appropriate titles and names during public affairs exercises; generate solutions to service unique situational problems by writing solutions, applying concepts, regulatory guidance, and knowledge of DA public affairs structure during four take-home In-Box exercises completed at intervals throughout service unique instruction; anticipate the generation of a special public affairs plan requiring the writing of a plan during a future take-home exercise; and originate a model/style for performing public affairs duties by internalizing concepts, principles and regulatory intents and responding with functional and appropriate courses of action to public affairs duties. Students are provided with detailed criterion for In-Box exercises. A minimum passing score of 75 is required on all five graded exercises.

NOTES:

*50% for
100% for
100% for*
DISCRIMINATES = Domain of intellectual skills showing the learned capability to distinguish objects, classes, individuals from others/another.

GENERATES = Domain of intellectual skills showing the learned capability to synthesize principles and guidance to create a unique solution (Problem Solving).

Goals of DINFOS Training Developments

(slide)

1. Reestablish the link between resident instruction and job tasks through the use of job task/POI objective correlation lists.
2. Reestablish a relationship between how and what we teach with what and how the student will be required to perform (both for graduation from school and success on the job).
3. Reestablish the link between student performance and job performance by using task classification, job performance considerations, performance objectives and criterion referenced testing.
4. Establish the instructor and developer as a working team by avoiding the "too much - too fast" approach.

**COMMON PROBLEMS WITH RESIDENT
INSTRUCTION**

**INSTRUCTORS HAVE LOST SIGHT OF THE FACT THAT
LESSON PLAN OBJECTIVES WERE BASED UPON JOB TASKS**

CLASSES

consist of

TASKS, ELEMENTS & SKILLS

that relate to

TASKS & DUTIES

which require the student to organize & transfer to

WRITTEN TEST & P.E.'s

which require the student to transfer to

**THE JOB OF INFORMATION OFFICER
(SPECIALIST)**

GENERAL SUBJECT AREAS & RESOURCES DRIVE

SEQUENCING OF INSTRUCTION.

THIS FAILS TO CAPITALIZE ON LEARNING THEORY -

USE OF TAXONOMIES & INSTRUCTIONAL SYSTEMS

DESIGN.

**JOB ANALYSIS OF SOFT SKILL BEHAVIORS FOR PROFESSIONAL
MILITARY EDUCATION CURRICULUM DEVELOPMENT**

Jerry M. Barucky, Captain, USAF

**USAF Occupational Measurement Center
Randolph AFB TX 78148**

A paper presented at the Soft Skills Analysis Symposium,
Department of the Army Training Development Institute,
Fort Monroe, Virginia, 14 August 1979. This presentation
is based upon a paper to be presented at the 21st Annual
Military Testing Association Conference, San Diego, CA

The views expressed in this presentation represent those
of the author and do not necessarily reflect the views of
the United States Air Force or the Department of Defense.

JOB ANALYSIS OF SOFT SKILL BEHAVIORS
FOR
PROFESSIONAL MILITARY EDUCATION CURRICULUM DEVELOPMENT

Each year in an attempt to improve the professional military competence of its personnel, the Air Force enrolls a significant percentage of its force in Professional Military Education (PME) courses. For both enlisted and officer personnel, a series of schools exist which, at various points in a normal career pattern, can be completed either in residence, through home-base seminar programs or via correspondence courses. These common schools are designed to provide a current picture of both the military profession and the aerospace role in national defense, and to build skills and knowledge that will help Air Force people become better leaders and managers.

In an attempt to ensure that the curricula of these programs are pertinent to the needs of those enrolled, the USAF Occupational Measurement Center (OMC) was requested to do a special occupational survey that would identify the leadership, management, and communicative tasks performed by Air Force personnel at each phase of their career. It was hoped that the data from the survey would assist curriculum managers in validating those portions of their curricula.

In this effort we began with the survey of enlisted personnel and used our normal methodology to develop and administer the survey instrument. In the development process this entailed first, a fairly extensive research of other job analysis studies used for "professional" or executive-level education. Second, detailed interview sessions with groups of experienced

personnel were conducted to build a common inventory of leadership, management, and communicative tasks. Third, the inventory was mailed to a fairly large number of personnel (150) at operational bases worldwide so that they could review the statements, critique them for accuracy and clarity, and add any tasks omitted. Finally, validation sessions were conducted with PME school representatives to insure that both the task inventory and the background or demographic questions would provide useable data for curriculum developers. The entire development process took approximately five months and resulted in a list of 264 tasks.

The survey was administered to a stratified random sample of 11,616 enlisted personnel in paygrades E-1 through E-9. Especially heavy sampling was done in paygrades E-5 and E-9 to allow career-field specific comparisons within those paygrades. Administration took approximately 16 weeks, and resulted in a return of 9,037 useable books. Checks across bases, major commands, and career fields indicated no significant pattern among survey books not returned.

Initially, the data from this survey effort have been applied to curriculum validation in four ways through a series of workshops at which curriculum managers from each phase of enlisted PME and all major commands were present. At these workshops, the general, leadership, management, and communications block objectives for each phase of PME instruction were revised or validated, based to a great extent on the percentage of the members of a specific population group that performed the tasks relevant to those specific blocks of

instruction. In the first and simplest application then, curriculum developers were able to determine, within various blocks of instruction, some of the specific skills or knowledges to emphasize. For example, from the figures in Table I, one can see that, among the examples of various types of writing skills or formats that one might deal with in teaching written communication to E-6s, it might be more important to insure that the students can write military letters or correspondence than to draft staff summary sheets: the data shows that 54 percent will perform the former task in their jobs, while only 19 percent are likely to perform the latter task.

However, it may not be as necessary to address this task in an E-6 course if one can be assured that the students are likely to have developed the necessary writing skill through earlier training programs or via on-the-job experience. This question of prior knowledge, however, illustrates the need to plan carefully the sequencing of the curricula across the various phases of PME so that skills introduced at an early level of PME can be built upon and enhanced at later stages, rather than merely repeated. Table 2 illustrates this second application of the survey data: how a comparison of task performance across paygrades can assist in planning the proper sequencing. Under normal circumstances, one would consider teaching a skill if at least 30 percent of the students are likely to perform the task employing that skill. Using this rough guideline, one can see that the skill necessary to write military letters or memoranda should be taught (to at least a basic level) to senior E-4s or E-5s. It is also evident that a large majority of E-6s and E-7s need to apply this skill, and that, dependent on the amount of

instruction provided in the earlier phases of PME, the PME schools attended by E-6s should insure that their students have developed this ability. On the other hand, Table 2 also indicates that other skills, such as the ability to design or modify organizational structure, need not be addressed until an NCO reaches the grade of E-8. Tasks of this nature would be more appropriate material for a later level of PME.

Another way in which the survey data has assisted curriculum developers is through the career-field specific comparisons made among E-9 personnel. Although E-8 and E-9 personnel are selected to attend the final phase of NCO PME irrespective of career area, a career field task comparison indicates that their individual needs for this material based on task performance may be vastly different. Identification of these differences in task performance can allow school personnel to identify both the differences in need and the differences in the experience of students as they enter the school. (For instance, NCOs in career areas such as food service or fuel management are much more likely to need skills in resource management than are NCOs in more technical fields such as band or dental career areas.) With this information, the school personnel can develop elective blocks, modularized or self-paced instruction, or even handouts or reading lists designed to meet these differing needs.

A fourth application of the survey data to the overall curriculum validation process was the ability to evaluate the general placement of the five phases of PME within the career span of enlisted personnel. Table 3 illustrates

the increasing involvement with leadership, management, and communicative tasks experienced by NCOs as they rise in paygrade. When one compares the differences in involvement at each paygrade with the differences in the amount of material offered in each of the phases of PME corresponding to those grades (Table 4), the present phasing seems to be logically planned.

The entire process of validating curriculum objectives according to the actual requirements of the job has been readily accepted and supported by the representatives at each workshop. Although the data has validated a majority of the existing curricula, numerous revisions have also been suggested. In many cases, the representatives' reaction has been that the revision recommended actually confirmed their own opinions and some of the opinions expressed on student critiques. They stated, however, that it often takes objective data such as that provided by the survey analysis to convince people that changes are needed.

While the enlisted survey administration and analysis was underway, the development of a similar instrument for the officer task list was begun. Although the same methodology was used, this development has proved to be much more difficult than the development of the enlisted survey. There was less agreement among the officers interviewed about their involvement in leadership, management, and communicative tasks, and they were more sensitive to different interpretations of words used in the behavioral statements. Thus, after interviews with more than 100 officers in at least a dozen detailed development sessions, and after a review of the inventory

by more than 200 officers in various commands worldwide, a listing of 324 behaviors has been prepared. This survey instrument will be administered to approximately 12,000 Air Force officers in paygrades O-1 through O-6. It is hoped that the results from this survey will prove as useful as the results of the enlisted survey have been.

TABLE 1

E-6's PERFORMANCE OF SAMPLE COMMUNICATIVE SKILLS TASKS

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
* DRAFT OFFICIAL LETTERS OR MEMORANDA	54
* DRAFT INPUTS OR SUPPLEMENTS TO DIRECTIVES	40
* DRAFT MESSAGES FOR ELECTRICAL TRANSMISSION	39
* DRAFT TALKING, BACKGROUND, OR POSITION PAPERS	19
* DRAFT STAFF SUMMARY SHEETS	16

TABLE 2

COMPARISON BY PAYGRADE OF PERCENT MEMBERS PERFORMING TWO SAMPLE TASKS

<u>TASK</u>	<u>E-3</u>	<u>E-4</u>	<u>E-5</u>	<u>E-6</u>	<u>E-7</u>	<u>E-8</u>	<u>E-9</u>
* DESIGN OR MODIFY ORGANIZATIONAL STRUCTURE	8	9	9	14	19	36	41
* DRAFT OFFICIAL LETTERS OR MEMORANDA	15	20	39	54	68	84	89

TABLE 3

NUMBER OF LEADERSHIP, MANAGEMENT, OR COMMUNICATIVE TASKS PERFORMED BY
30% AND 50% OF PAYGRADES E-3 THROUGH E-9

<u>PAYGRADE</u>	<u>NO. PERFORMED BY 30% OR MORE</u>	<u>NO. PERFORMED BY 50% OR MORE</u>
E-3	6	4
E-4 (12-48 MOS)	11	4
E-4 (48+ MOS)	20	4
E-5	69	14
E-6	110	41
E-7	161	77
E-8	210	121
E-9	225	139

TABLE 4

HOURS OF INSTRUCTION AT VARIOUS ENLISTED PME PHASES

<u>PHASE</u>	<u>COURSE</u>	<u>HOURS</u>	<u>POPULATION</u>
I	NCO ORIENTATION COURSE	@ 20	E-4 (SR. AMN)
II	USAF SUPERVISOR'S COURSE	@ 52	E-4 (SGT)
III	NCO LEADERSHIP SCHOOL	@140	SR. E-4, E-5
IV	NCO ACADEMY	@230	E-6, E-7
V	SR. NCO ACADEMY	@360	E-8, E-9

PROFESSIONAL MILITARY EDUCATION
OCCUPATIONAL SURVEY PROJECT
CONDUCTED BY
UNITED STATES AIR FORCE
OCCUPATIONAL MEASUREMENT CENTER

ENLISTED PME PHASES

<u>PHASE</u>	<u>COURSE</u>	<u>HOURS</u>	<u>POPULATION</u>
I	NCO ORIENTATION COURSE	20	E-4 (SR, AMN)
II	USAF SUPERVISOR'S COURSE	52	E-4 (SGT)
III	NCO LEADERSHIP SCHOOL	140	SR E-4, E-5
IV	NCO ACADEMY	230	E-6, E-7
V	SR. NCO ACADEMY	360	E-8, E-9

OFFICER PME PHASES

<u>PHASE</u>	<u>PROGRAM</u>	<u>COURSE LENGTH</u>	<u>NUMBER STUDENTS</u>	<u>POPULATION</u>
I	PRECOMMISSIONING			
II	SQUADRON OFFICERS SCHOOL	11 WEEKS	2550	0-3 (4-8 YEARS)
III	AIR COMMAND AND STAFF COLLEGE	10 MONTHS	382	0-4
IV	AIR WAR COLLEGE	10 MONTHS	150	0-5 & 0-6 LESS THAN 21 YEARS

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ARMY TRAINING DEVELOPMENTS INST FORT MONROE VA

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PROCEEDINGS OF THE TRADOC CHIEFS OF ANALYSIS SEMINAR HELD IN NE--ETC(U)
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PURPOSE OF PROJECT

CONDUCT AN OCCUPATIONAL SURVEY ANALYSIS TO HELP IDENTIFY PME NEEDS IN
THE LEADERSHIP, MANAGEMENT, AND COMMUNICATIVE SKILLS AREAS

DEVELOPMENT OF SURVEY INSTRUMENT

- RESEARCH OF MILITARY/CIVILIAN EXECUTIVE TASK STUDIES
- DEVELOP EXECUTIVE TASK INVENTORY
 - INTERVIEW PHASE
 - FIELD VALIDATION PHASE
- DEVELOP PME TOPICS SECTION
- DEVELOP BACKGROUND SECTION

OCCUPATIONAL SURVEY BOOKLET

- DETAILED BACKGROUND
- COMPREHENSIVE TASK LIST
 - ALL RESPONDENTS
 - CHECK TASKS PERFORMED IN PRESENT JOB
 - TIME RATE (RELATIVE) THOSE TASKS PERFORMED
 - SELECTED RESPONDENTS
 - RATE RELATIVE DIFFICULTY OF ALL TASKS
 - DETERMINE TRAINING EMPHASIS ON LISTING OF
PME CURRICULUM TOPICS

DISTRIBUTION OF FINAL ENLISTED SURVEY SAMPLE

<u>GRADE</u>	<u>NUMBER IN FINAL SAMPLE</u>	<u>PERCENT OF ASSIGNED</u>
E-9	1515	31
E-8	619	6
E-7	734	2
E-6	829	2
E-5	3235	3
E-4	730	1
E-3	966	1
E-2	372	1
E-1	30	.1
TOTAL	<u>9037</u>	

APPLICATIONS FOR CURRICULUM DEVELOPERS

- HELP DETERMINE BEHAVIORS TO EMPHASIZE IN LEADERSHIP/MANAGEMENT EDUCATION
- HELP DESIGN CURRICULUM FLOW THROUGHOUT VARIOUS PHASES
- IDENTIFY OPTIMAL TIME FOR ATTENDANCE OF SCHOOLS
- HELP TAILOR SPECIFIC BLOCKS OF INSTRUCTION TO POPULATION GROUPS

E-6's PERFORMANCE OF SAMPLE COMMUNICATIVE SKILLS TASKS

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
• DRAFT OFFICIAL LETTERS OR MEMORANDA	54
• DRAFT INPUTS OR SUPPLEMENTS TO DIRECTIVES	40
• DRAFT MESSAGES FOR ELECTRICAL TRANSMISSION	39
• DRAFT TALKING, BACKGROUND, OR POSITION PAPERS	19
• DRAFT STAFF SUMMARY SHEETS	16

PERCENT MEMBERS PERFORMING TASKS BY GRADE

TASK	E-3	E-4	E-5	E-6	E-7	E-8	E-9
• DESIGN OR MODIFY ORGANIZATIONAL STRUCTURE	8	9	9	14	19	36	41
• DRAFT OFFICIAL LETTERS OR MEMORANDA	15	20	39	54	68	84	89

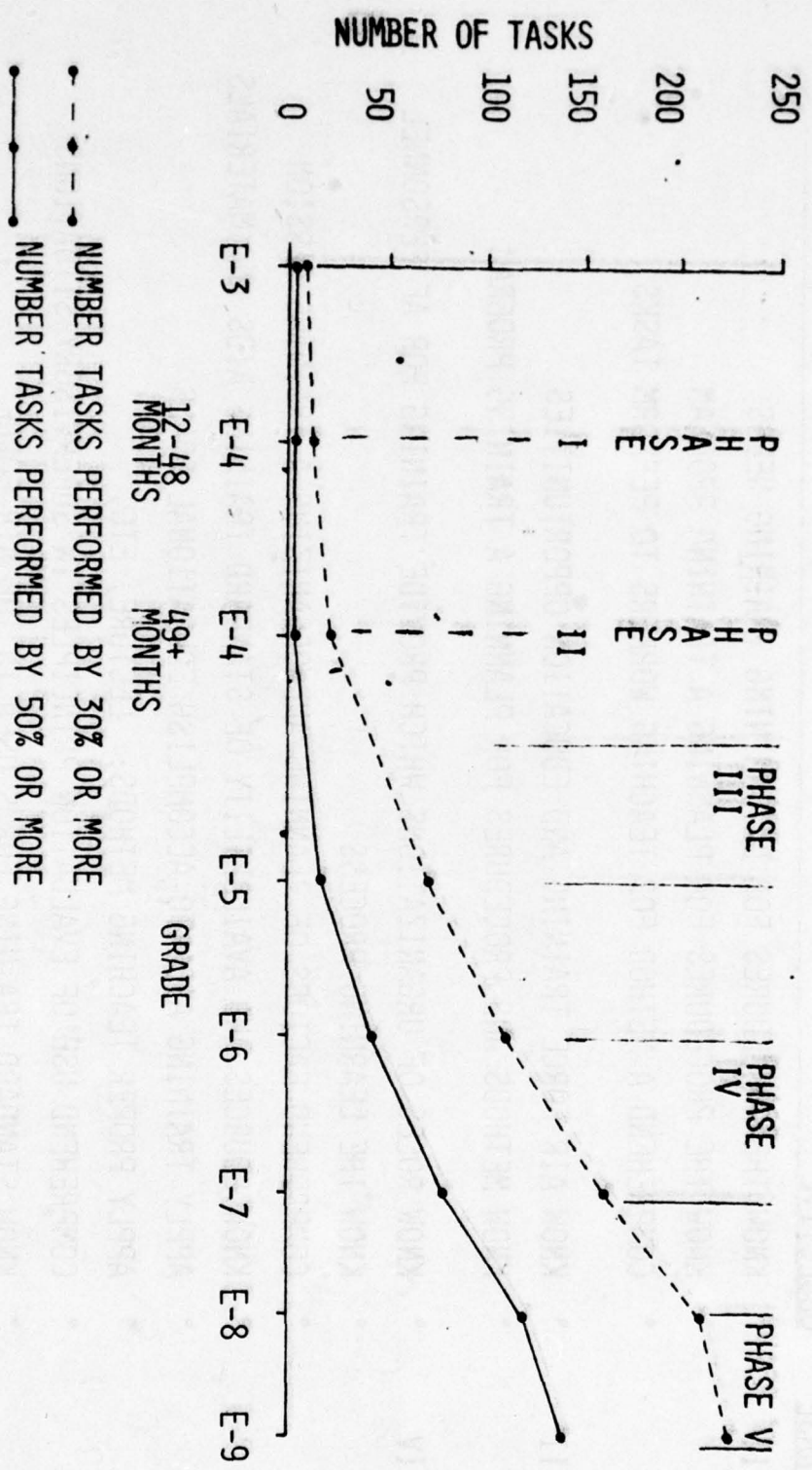
GRADE OF RESPONSIBILITY FOR TRAINING TASKS
(AT LEAST 30% OF PAYGRADE PERFORMING)

TASKS		GRADES APPLICABLE
E97	CONDUCT ON-THE-JOB TRAINING	SP AMN & ABOVE
E108	MAINTAIN TRAINING RECORDS	E-4 (48 MOS) & ABOVE
E99	DETERMINE TRAINING REQUIREMENTS FOR INDIVIDUALS	E-5 AND ABOVE
E105	EVALUATE SUBORDINATES TRAINING PROGRESS	
E107	INITIATE CLASSIFICATION ACTIONS SUCH AS UPGRADE...	E-6 AND ABOVE
E109	PLAN TRAINING	
E94	ARRANGE FOR FORMAL TRAINING, SUCH AS SPECIAL COURSE...	E-7 AND ABOVE
E106	EVALUATE TRAINING PROGRAM	
E110	PREPARE INSTRUCTIONAL MATERIALS SUCH AS COURSE OUTLINE	
E111	SELECT OR NOMINATE PERSONNEL FOR FORMAL SCHOOLS	
E99	DETERMINE UNIT OR ORGANIZATIONAL TRAINING REQUIREMENTS	E-8 AND E-9
E103	EVALUATE GRADUATES OF TRAINING PROGRAMS	

TRAINING RELATED CURRICULA AS LISTED IN AFR 50-39

<u>PHASE</u>	<u>OBJECTIVE</u>
II	<ul style="list-style-type: none">° KNOW THE PROCEDURES FOR DETERMINING TRAINING NEEDS° KNOW THE PROCEDURES FOR PLANNING A TRAINING PROGRAM° COMPREHEND A METHOD FOR TEACHING WORKERS TO PERFORM TASKS
III	<ul style="list-style-type: none">° KNOW AIR FORCE TRAINING AND EDUCATION OPPORTUNITIES° KNOW METHODS AND PROCEDURES FOR PLANNING A TRAINING PROGRAM
IV	<ul style="list-style-type: none">° KNOW ROLES OF ORGANIZATIONS WHICH PROVIDE TRAINING FOR AF PERSONNEL° KNOW THE LEARNING PROCESS° COMPREHEND FACTORS OF PLANNING AND ORGANIZING A TRAINING SESSION° KNOW SOURCES AND AVAILABILITY OF STANDARD TRAINING AIDS AND MATERIALS° APPLY TRAINING AIDS TO ACCOMPLISH EDUCATIONAL GOALS° APPLY PROPER TEACHING METHODS: LECTURE, ETC.° COMPREHEND USE OF EVALUATION PRINCIPLES IN SUPERVISORY SITUATIONS° KNOW STANDARD TRAINING FORMS USED IN THE AIR FORCE

PROGRESSION OF MANAGERIAL TASK PERFORMANCE WITH GRADE PROGRESSION



CAREER FIELDS REPORTING GREATEST L AND M TASK PERFORMANCE

CAREER FIELDS	NO. TASKS PERFORMED ABOVE NORM
FUELS (62XXX)	101
FOOD SERVICES (61XXX)	92
VEHICLE MAINTENANCE (47XXX)	82
MORALE, WELFARE AND RECREATION (74XXX)	64
FIRST SERGEANT (10XXX)	61
AUDIOVISUAL (23XXX)	50
AVIONIC SYSTEMS (34XXX)	31

CAREER FIELDS REPORTING LEAST L AND M TASK PERFORMANCE

CAREER FIELDS	NO. TASKS PERFORMED BELOW NORM
COMPUTER SYSTEMS (51XXX)	94
BAND (87XXX)	90
EDUCATION AND TRAINING (75XXX)	63
SERVICES (61XXX)	51
AIRCREW PROTECTION (46XXX)	46
DENTAL (98XXX)	35
MISSILE ELECTRONIC MAINTENANCE (31XXX)	32

DEVELOPMENT OF OFFICER SURVEY ALMOST COMPLETE

- INTERVIEWS WITH 90 OFFICERS, O-1 THROUGH O-6
- TECHNICAL REVIEW BY 225 OFFICERS AT 12 BASES
- REVIEW BY AIR UNIVERSITY USING AGENCIES

SURVEY ADMINISTRATION PLAN

- APPROXIMATELY 12,000 OFFICERS
- CAREER FIELD SPECIFIC FOR 0-6, 0-4, AND 0-3

SUMMARY

- ENLISTED PME CURRICULUM VALIDATION AND REVISION IS BEING COMPLETED BASED ON SURVEY DATA
- OFFICER PME SURVEY BOOKLET NEARLY READY FOR PRINTING
- ENLISTED SURVEY DATA PROVING USEFUL FOR GROWING VARIETY OF USERS

SOFT SKILL ANALYSIS PROBLEMS

Introduction:

The purpose of this discussion period was to identify the 3 primary soft skill analysis problems within each of three service schools attending. This rank ordering of problems was done in small groups to early on encourage discussion and to achieve consensus.

Procedure:

There were 10 groups into which the attendees were assigned. Each group had 45 minutes to rank order the 3 most important problems. Each participant was provided a list of possible problem statements to work from (Incl 1). The groups then separated their findings in the next session.

Results:

The primary problem areas related to

- (a) the identification of soft skills and
- (b) the analysis of soft skills. The actual results of the group discussions are shown in incl 2.

These findings tracked exactly with the preliminary hypotheses of the problems of soft skill analysis and the focus of the soft skill project. These results were then used as a point of debarkation by Dr. Branson in his presentation of the project strawman.

SOFT SKILL/SOFT TASK PROBLEM STATEMENTS/QUESTIONS

1. How do you know a soft skill/soft task when you see one?
 - Is it a task for which there is no known procedure?
 - One that can be done by numerous procedures?
 - Is it one that is driven by personality? Attitude?
2. How do you analyze soft skills/tasks when you have one?
3. How do you train soft skills/tasks?
4. How do you state a soft skill/task?
5. Do you have a vocabulary problem with these "soft" areas? Is there a need for a unique set of words?
6. Do you feel there are adequate procedures (presently existing) to analyze these soft skills/tasks?
7. Do you have trouble writing conditions/standards for soft tasks?
8. Are you having trouble making a determination at what skill level a soft task/skill should be taught? Problem on determining how much to include?
9. Are soft tasks developed by other proponents (TRADOC Service Schools) difficult to adapt to your training program?
10. Do soft tasks cost more (resources) to analyze than traditional tasks?
11. Do soft tasks require a new format for task statements? Use "Action" statement in lieu of "task"?
12. Do you have confidence in the competency of those designated within your DTD to conduct soft skill task analysis? What prerequisites have been identified for personnel selected for this job?
13. Are your analysts able to detail sufficiently a soft task, to insure that what is being analyzed is being taught?
14. Is there a need for a common form for soft tasks/skill analysis?

----ADD ADDITIONAL PROBLEM STATEMENTS----

- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

PROBLEM AREAS

[illegible]

14 15 16 17 18 19 20

A

B

C

D

E

F

G

H

I

J

Total

3

TASK ELEMENTS

IDENTIFY RESOURCES

EVALUATE AND IMPROVE TASK DESCRIPTION

PLAN THE TASK ANALYSIS

SPECIFY CUES

SPECIFY CONDITIONS

SPECIFY OUTCOMES

SPECIFY ACCOUNTABILITY

SPECIFY STANDARDS

SPECIFY PROCEDURES OR MODELS

DOCUMENT TASK SPECIFICATION

REVIEW AND REVISE TASK SPECIFICATION

Encl 12

CUES

TO INITIATE PERFORMANCE OF THE TASK ELEMENT

CONDITIONS

OF TASK PERFORMANCE, INCLUDING RESOURCES,
PERFORMANCE AIDS, WORKSHEETS, AND PREREQUISITE
SKILL AND KNOWLEDGE OF THE PERFORMER.

OUTCOMES

OF THE TASK ELEMENT

ACCOUNTABILITY

FOR THE OUTCOMES

STANDARDS

FOR EVALUATION OF OUTCOMES

PROCEDURES

FOR TASK PERFORMANCE

PERFORMANCE DESCRIPTION

A DESCRIPTION OF THE JOB PERFORMANCE WITH SUFFICIENT CLARITY SO THAT THE ANALYST WILL UNDERSTAND THE NATURE OF THE PERFORMANCE. IT WOULD INCLUDE AT LEAST THE BEHAVIOR PORTION OF THE TASK STATEMENT AND MAY CONTAIN MUCH MORE. CAREFUL ATTENTION SHOULD BE PAID TO THE SELECTION OF VERBS DESCRIBING OBSERVABLE PROCESSES OR OUTCOMES.

UNITARY TASK

A TASK WHICH IS ALWAYS PERFORMED IN THE
SAME WAY WITH THE SAME ONSET CUES.

REFERENCE MODEL

AN INTERRELATED SET OF PRINCIPLES OR KNOWLEDGE FROM WHICH A PERSON MAY BE ABLE TO GENERATE MANY DIFFERENT BUT RELATED PROCEDURES. EACH PROCEDURE, ALTHOUGH DIFFERENT, MAY RESULT IN EFFECTIVE PERFORMANCE BY DIFFERENT PEOPLE IN DIFFERENT SITUATIONS.

MULTIPLE TASK

A MULTIPLE TASK IS PERFORMED FOLLOWING BASICALLY THE SAME PROCEDURES APPLIED IN A VARIETY OF CIRCUMSTANCES. FAULT ISOLATION IS AN EXAMPLE OF A MULTIPLE TASK, IN WHICH SUBSEQUENT ACTIONS ARE DEPENDENT ON DECISIONS MADE EARLIER.

TRANSFER TASK

PERFORMANCE IN WHICH THE ONSET CUES ARE
LIKELY TO BE VARIABLE, THE PROCESSES USED
MAY VARY FROM ONE PERSON TO ANOTHER, OR
FROM ONE SITUATION TO ANOTHER, AND THE
OUTCOMES ARE LIKELY TO BE EVALUATED CON-
SIDERABLY MORE SUBJECTIVELY.

CLASSIFICATION EXAMPLES

MAINTAINS CURRENT WORK SCHEDULE

ACCOMPANIES ALIEN TO HOSPITAL

DETERMINES TRAINING NEEDS

SITS ON SELECTION PANELS

ESCORTS ALIEN TO BORDER STATION

PREPARES SUPPLY REQUISITIONS

INVESTIGATES ACCIDENTS

TAKES ALIEN TO FOREIGN COUNTRY

SERVES AS LAW INSTRUCTOR

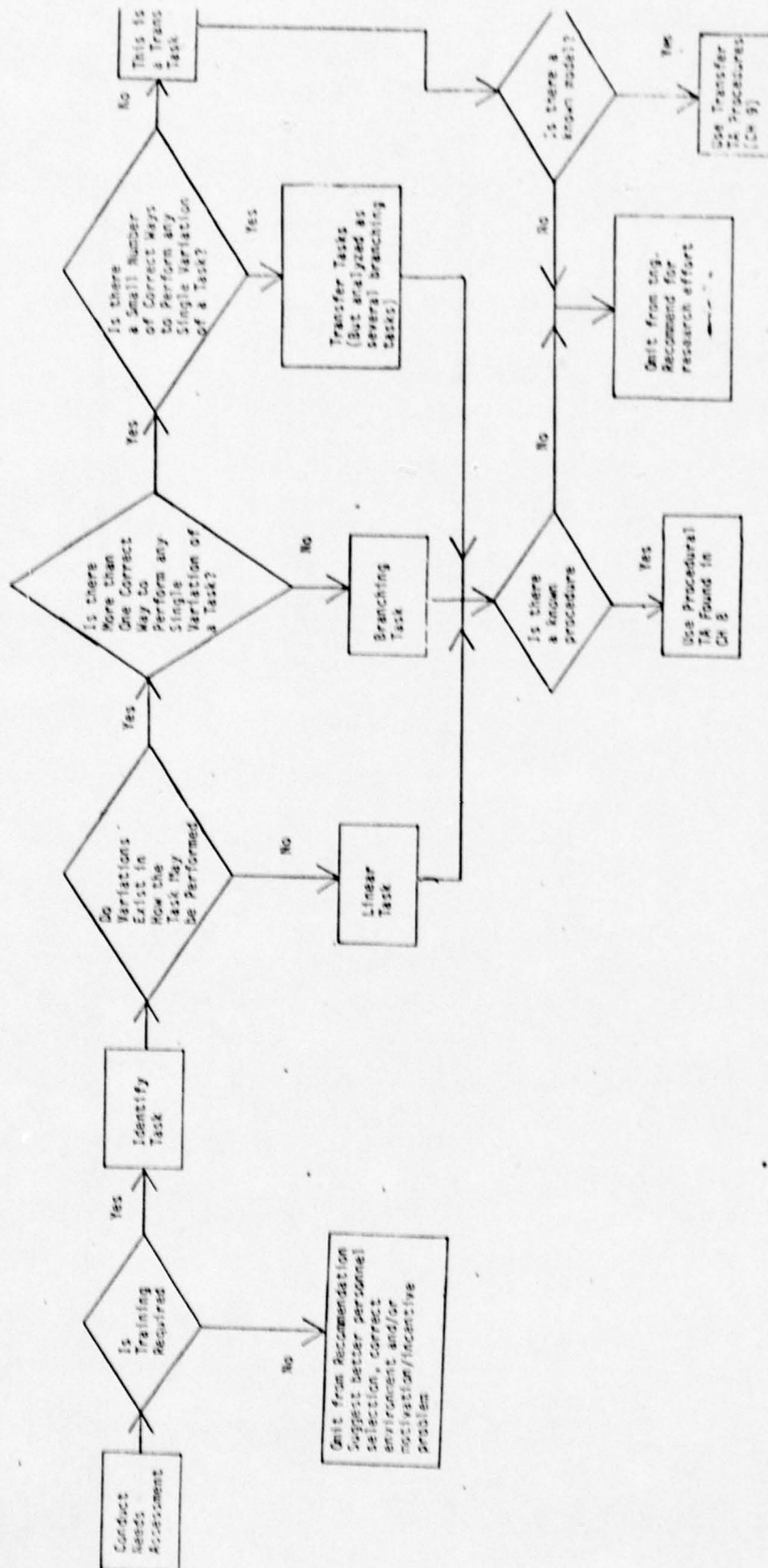
DISPOSES OF SECURE MATERIAL

PERFORMS PUBLIC RELATIONS DUTIES

MAINTAINS LIAISON WITH INFORMANTS

DELIVERS SPEECHES TO CITIZEN GROUPS

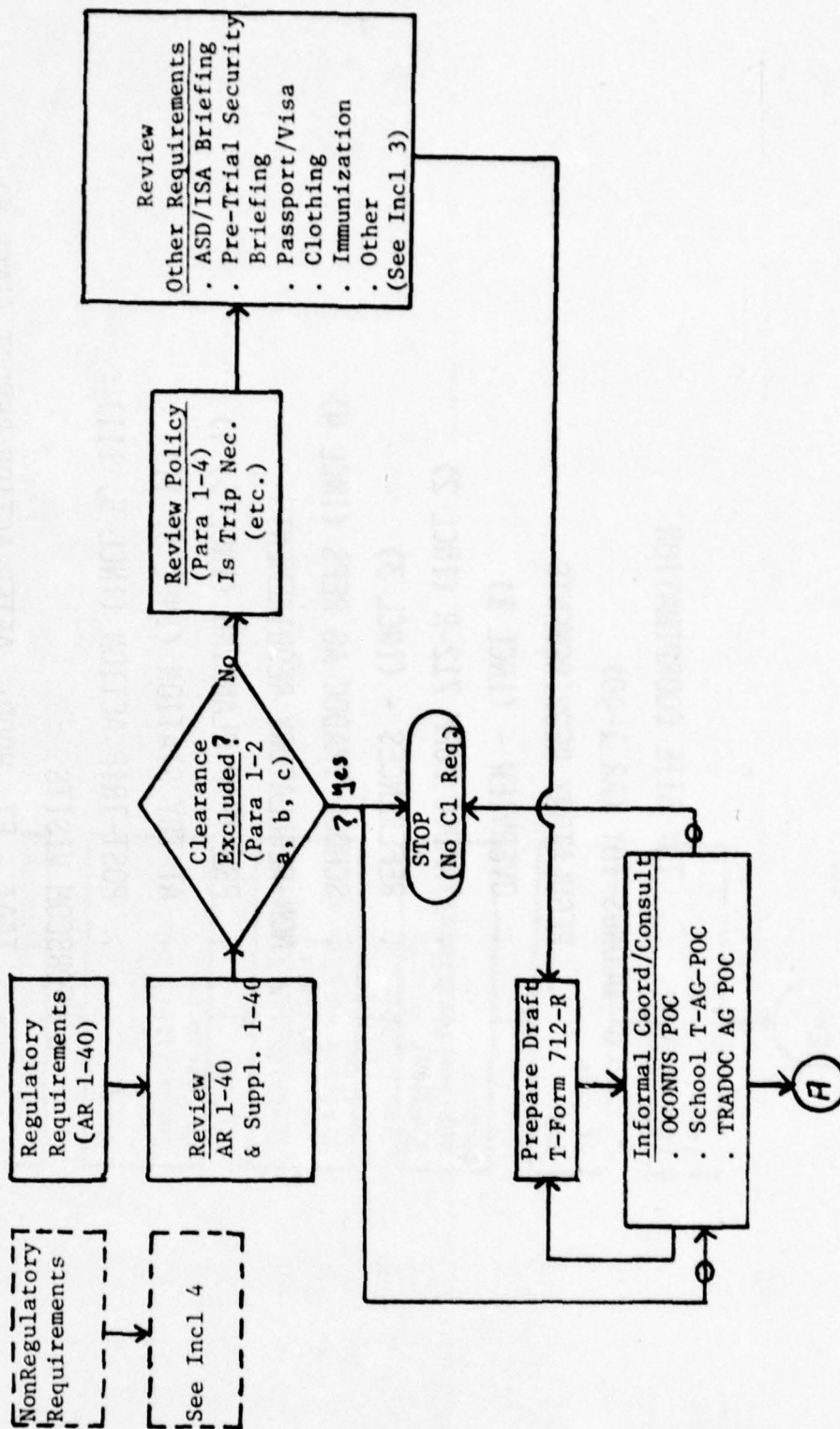
DELIVERS ALIEN TO DEPORTATION HEARING



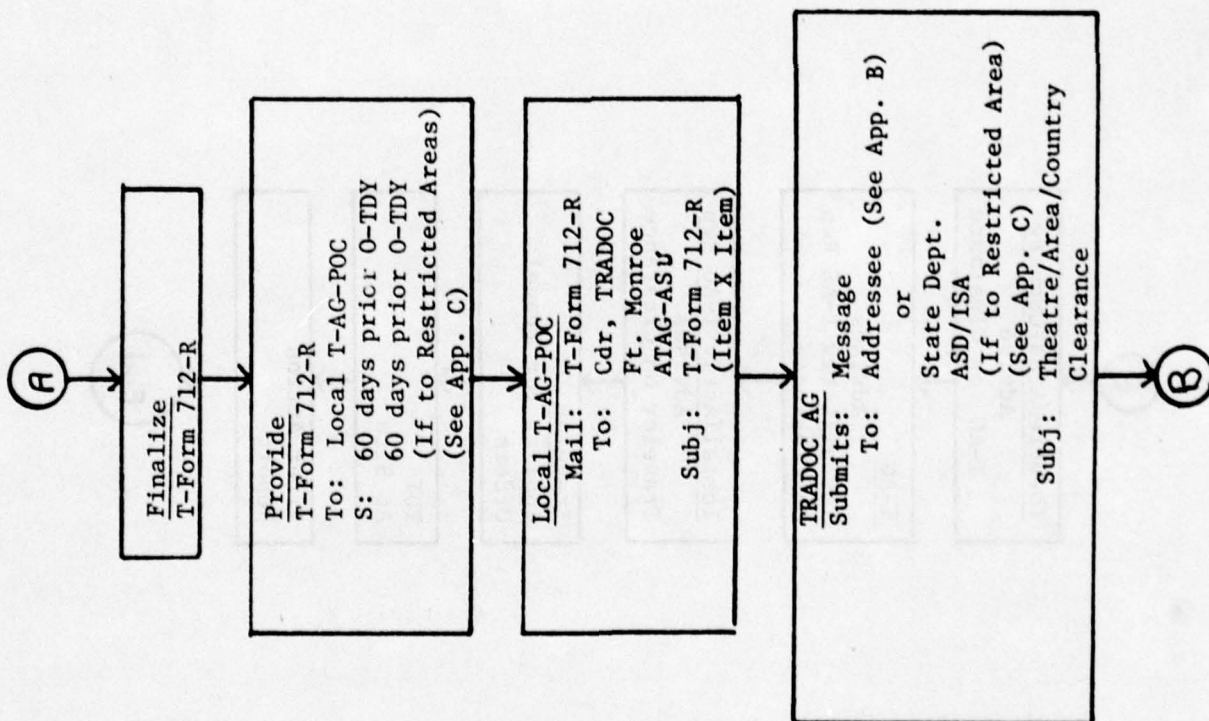
TDY SITE COORDINATION

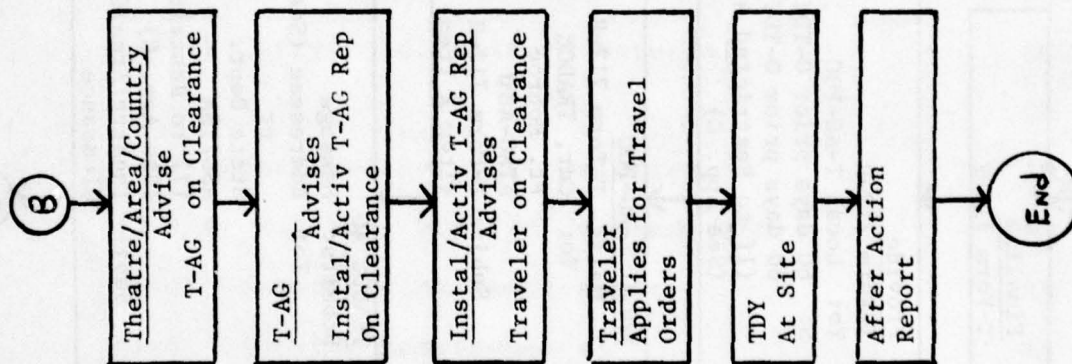
- o OCONUS TDY (AR 1-40)
 - . REGULATORY REQUIREMENTS
 - . OVERVIEW - (INCL 1)
 - . TRADOC FORM 712-R (INCL 2)
 - . REFERENCES - (INCL 3)
 - . SCHOOL TRADOC AG REPS (INCL 4)
 - . NON-REGULATORY REQUIREMENTS
 - . PRE-TRIP PLANNING (INCL 5, I)
 - . AT TDY STATION (INCL 5, II)
 - . POST-TRIP ACTION (INCL 5, III)
- o FORSCOM VISITS
 - . TAAT - FT. HOOD: AFTER-ACTION REPORT (INCL 6)
 - . JOINT TRADOC/FORSCOM AGREEMENT (INCL 7)

OVERVIEW
OCONUS TDY
PROCESSING



Incl 1





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CDR TRADOC FT MONROE VA//ATAG-ASU//

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SUBJ OCONUS TDY REQUIREMENTS

A. TRADOC SUPPL 1 TO AR 3-40

OCONUS TDY QUARTERLY REPORTING REQUIREMENT IS SUSPENDED PNDG PUBLICATION OF CHANGE TO REF A. OCONUS TDY REQUESTS SHOULD BE SUBMITTED ON TRADOC FM 712-R, TO THIS HQ, ATTN: ATAG-ASU (MRS. HOWARD), 60 DAYS PRIOR TO ANTICIPATED TVL DATE. *RV 680-3989/2364*

ATAG-AS-SS FILE COPY

L. TOME, SCH QUOTA ASST, ATAG-ASU, COORD NOT RQR.

3989, 3 JUL 79

for ROBERT W. WELKER, LTC, AGC, ATAG-AS, 3305

Martina C. Howard

UNCLAS

032000Z JUL 79

REFERENCES

OCONUS TDY

1. Primary:

- o DOD Directive 5000.7
- o CINCPAC Instruction 4650.4
- o AR 1-40
- o TRADOC Suppl 1-40
- o TRADOC Memo 1-40

2. Other:

AR 1-40

PARA

(1-4, d/e) Disclosure of Classified Information:	AR 380-10 AR 360-5
(1-4f) Logistic Support to Nongovernment:	AR 700-32
(2-1k) Requests for Contractor Sponsored Visits:	DOD IS Reg: 5220.22R
(2-1l) Carrying Classified Material:	DOD Reg 5200.1-R Ch 8
(2-2) Pretravel Security Briefing:	AR 381-12
(3-1/4) Military Airlift Command (MAC):	AR 37-26
(3-4) Passport/visa Requirement:	AR 600-290
(3-5) Clothing Requirements:	AR 670-6
(3-6) Immunization Requirements:	AR 40-562

POINTS OF CONTACT OCONUS TDY

APG (ATSL-RM).....	Mr. Armstrong/Mr. Knapstein	283-4803/4908
BELVOIR USAEC (ATZA-PAA-CA).....	Mrs Farnum/SFC Carpenter	354-2013/4084
ARMY TNG STUDY (ATCG-ATS).....	MAJ Quekemeyer	354-1461/1462/1463
BEN HARRISON ADMINEN (ATZI-PA-PAB).....	SP Tina Buckner/MO Strain	699-2569/2765/2369
DIINFOS.....	Mrs. Vivian Rowan	699-3758
BEHNING (USAIC) (ATZB-AG-ASC).....	Mrs. Elaine French/Ms Glenda Forrest	835-4559/784-4861/835-2362
(INF BD).....	Mrs. Spratley	835-1216
BLISS (USAADS) (ATSA-DOS-AS).....	Ms. Lucy Lindsay/CPT Stutler	978- 5736-255 ^{1996/3351/5625}
BRAGG (IMA) (ATSU-SE).....	Mrs. Coonrod/CPT Carlson	236-4706/7694/3819
(IROTC) (ATOAA-RH).....	Ms Essary	236-9001/9101
(ACE BD) (ATXA-BD-AMR).....	Mrs. Thomas	236-7118/5205
DEVENS (USAISD) (ATSIE-DS-AS).....	^{SWYDE} SSG Murray/LT Mann	256-2807/2033
DIX (ATZDAG-M-P).....	Mr. DeMaria/SGT Oster	944-6455/5285/3198/4659
DLI (ATFL-DOS-AS).....	^{LY DYERLY?} SSGT Dunbar/CPT Harris	929-8315/8264/8643/8177
EUSTIS (TRANSCEN) (ATZF-AG).....	Mr. Raines	(Coml) 878-2180/2204/2908/3634
(ARMY TNG BD) (ATTNG-ATB-PP).....	Bonnie Trotter	(Coml) 878-4655 (Rotary)
(TDI) (ATTNG-TDI-OA) Ft Monroe.....	Mrs. Smith/LTC Wirth	(Coml) 2906/2027
(TSC) (ATTSC-AD).....	Mrs. Marcia Gedjinas/CPT Villagomez	(Coml) 878-4651
GORDON (ATZHPA-A-P) (SIG CEN).....	Mrs. Reese	780-6426/4371
(CE BD) ().....	LTC O'Connor	780-7955/7956/7957
HOOD (TCATA) (ATCAT-SPT-AGA).....	CPT Saame ^{PERKUL/SGT HUNTER}	737-1303/9385
HUACHUCA (ATSI-RH-B).....	Mrs. Betty Walker/Mrs. May Louise Startt	879-2526/5659 (3723/3520)

JACKSON (ATZJ-AG).....	SFC Uren/PVT Poultney	734-7982/734
KNOX (ARMOR CEN & SCH) (ATZK-AG-NPA).....	Miss Holloway/Jan Hobbs	464-1353/6052/4034
(2ROTC) (ATOB-PA-A).....	Mr. Cisco/LT Martin	464-1854
(ARM&ENGR BD) (ATZK-AE-AD).....	Mrs. Buckman	464-6516/6919
LEAVENWORTH (CAC) (ATZLAG-MPA).....	Mrs. Kris Dyles/Mrs. Hamler	552-4640/4240
LEE (LOGC) (ATCL-DA).....	MSG Weimer/PFC Cathy Troutman	687-3511/1080/2308
(QMCEN) (ATZM-AG).....	SQM Sommerfeldt/CPT Basinger	687-2276/1660
LEWIS (4ROTC) (ATOP-PAA).....	LTC Smith/CPT Caln/SFC Hill	357-5737
MC CLELLAN (ATZN-AGA).....	SFC Hudson/Mr. Wiles	865-3194/5324
ORD (COEC) (ATEC-P-MP).....	CPT Wong/Mrs. Burkhardt	929-4712/3174
(OETC) (ATXW-RMA).....	LTC <i>NIAG 0111/201-929-5919/3506</i> MAJ Sheffield/CPT Armour (emergency #4882)	929-7297/3549/4716/2775
REDSTONE ARSENAL (NMCS) (ATSK-DS-AS).....	SP5 Carter	746-5137/3053
RILEY (RTNG BOE) (ATRB-RH).....	Mrs. Phillips	856-6135/6124
(3ROTC) (ATOC-P).....	MAJ Houdysbell	856-7326/7416
RUCKER (ATZQ-PA-AGP-M).....	<i>MS GRACE DEANFIELD</i> MAJ Houdysbell /LT Higley	558-4195/5208/4595/2605
SILL (ATZR-AGPA).....	<i>WARD</i> SP Houdysbell /Mrs. Nelms	639-6707/5963
WSRM (TRASANA) (ATAA-RF).....	Mr. Ortega	258-5513/3533
(DR. PAYNE'S OFFICE) (ATAA-D).....	Mrs. Crista Cloyd	258-5911
LEONARD WOOD (ATZT-AGPA).....	Mr. Brunner	581-4187
ARMY WAR COLLEGE.....	MAJ Wyatt/Mr. Mahoney	242-4220/4911
CARLISLE BARRACKS (ATZE-PA-A).....	CPT Wright	242-4342
HAMILTON (ATZDFH-AG).....	Mr. Kleinman	232-5231/2224
HONROE.....	Angie Saucier, Orders Clerk	727-2174/2175/2176
SCHOOL OF MUSIC (ATTNG-SM-CMT).....	SGT Benner/CPT Chalfant	680-7506/7507/7508
WADSWORTH (CHCS) (ATSC-RH).....	CPT Robbins	938-1630, ext 203, 216, 74

JACKSON (ATZJ-AG).....	SFC Uren/PVT Poultney	734-7032/7394
KING (ARMOR CEN & SCII) (ATZK-AG-HPA).....	Miss Holloway/Jan Hobbs	464-1353/6052/44034
(2ROTC) (ATOB-PA-A).....	Mr. Cisco/LT Martin	464-1854
(ARMENGR BD) (ATZK-AE-AD).....	Mrs. Buckman	464-6516/6919
LEAVENWORTH (CAC) (ATZLAG-HPA).....	Mrs. Kris Dykes/Mrs. Hamler	552-4640/4240
LEE (LOGC) (ATCL-DA).....	MSG Weimer/PFC Cathy Troutman	687-3511/1080/2308
(QMCEN) (ATZN-AG).....	SGM Sommerfeldt/CPT Basinger	687-2276/1660
LEWIS (4ROTC) (ATOP-PAA).....	LTC Smith/CPT Caln/SFC Hill	357-5737
MC CLELLAN (ATZN-AGA).....	SFC Hudson/Mr. Wiles	365-3194/5324
GRU (CDEC) (ATEC-P-HP).....	CPT Wong/Mrs. Burkhardt	929-4712/3174
(OETC) (ATXM-RMA).....	LTC ^{MAJ CAMPBELL - 929-5919/3536} MAJ Sheffield/CPT Armour (emergency #4882)	929-7297/3549/4716/2775
REDSTONE ARSENAL (MMCS) (ATSK-DS-AS).....	SP5 Carter	746-5137/3053
RILEY (RTNG BDE) (ATRB-RM).....	Mrs. Phillips	856-6135/6124
(3ROTC) (ATOC-P).....	MAJ Houdysheill	856-7326/7216
RUCKER (ATZQ-PA-AGP-M).....	^{MAJ GRACE DENNIFIELD} CPT Heston /LT Higley	558-4195/5208/4595/2605
SILL (ATZR-AGPA).....	^{WARD} SP Heston /Mrs. Nelms	639-6707/5963
WSRM (TRASANA) (ATAA-RF).....	Mr. Ortega	258-5513/3533
(DR. PAYNE'S OFFICE) (ATAA-D).....	Mrs. Crista Cloyd	258-5911
LEONARD WOOD (ATZT-AGPA).....	Mr. Brunner	581-4137
ARMY WAR COLLEGE.....	MAJ Wyatt/Mr. Mahoney	242-4220/4811
CARLISLE BARRACKS (ATZE-PA-A).....	CPT Wright	242-4342
FAHILLTON (ATZDFH-AG).....	Mr. Kleinman	232-5231/2224
WOLFE.....	Angie Saucier, Orders Clerk	727-2174/2175/2176
SCHOOL OF MUSIC (ATTNG-SM-CMT).....	SGT Benner/CPT Chalfant	680-7506/7507/7508
WADSWORTH (CHCS) (ATSC-RM).....	CPT Robbins	930-1630, ext 203, 246, 740

OCONUS TDY

NON-REGULATORY REQUIREMENTS

I PRE-TRIP PLANNING

- o Designate TDY Team POC
- o Purpose of Trip (Is trip necessary?)
 - . School initiates trip
 - . Field invites school
- o Where trip*to? (Trip Plans/Duration)
 - . MOSS type/location/density (TAADS/MILPERCEN)
 - . Equipment location
 - . Review prior audit trail
 - . TDY \$ status
 - . Other?
 - TRADE-OFFS REQUIRED? -
- o Team Composition
 - . Knowledge of Job and Task Analysis
 - . Prior TDY experience
 - . Compatibility (long trips)
 - . Speak foreign language
 - . Other?
- o Command Group Permission
 - . Required if not tasked by Commandant
 - . Command group member traveling/plans
- o POC (Identify/Coordinate)
 - . Establish POC(s) at TDY site.
 - . FONECON Coordination:
 - . Trip purpose (clearly detailed)
 - . Tentative dates
 - . Team composition (name/rank/grade)
 - . Proposed itinerary (clearly detailed)
 - . Minimum support requirements
 - . Quarters (government/non-government)
 - . Local vehicle
 - . Security clearance
 - . Command support requirements (minimized)
 - . Identify TDY team POC/AV #/etc.
 - . Other?

- . POC Interface Emphasis
 - . 1 OCONUS POC sufficient (for only 1 unit visit)
 - . 1 OCONUS POC (for large area visit (USAREUR, etc)
 - . POC(s) must: Coordinate itinerary/unit commitments
 - . Travelers must: maintain close FONECON with POC (before/during TDY: to verify plans)

- POC = SUCCESS/FAILURE OF TDY -

(F) o Formal Coordination

- . Commandant letter to OCONUS CG
 - . Reference informal coordination details
 - . Provide tentative itinerary for comment/change
- . OCONUS CG reply to commandant
 - . Trip/details confirmed/amended
 - . Itinerary confirmed/amended

(F) o Intra-School Coordination

- . Advise school activities of TDY (DEV, etc)
- . Solicit input/other needs

o Data Requirements

- . Critical task list(s) ready
- . All data needs identified
- . All data collection instruments developed
 - . Questionnaires
 - . Surveys
 - . Interviews
- . Determine printing requirements early!
- . Other?

o TDY Orders/Tickets (during informal coordination)

- . Begin travel arrangements early
 - . Military Air Command (AR 37-26)
 - . Commerical airline
 - . Rental car (Note: major USA companies have OCONUS affiliates)
 - . Port call requests
- . Type of Orders: Provide for contingencies/minimal unit impact allow for rental car/non-gvt quarters/itinerary changes) DD Form 1610)
- . Await theatre/area/country clearance (AR/TRADOC Suppl 1-40)

(F) . Upon clearance: authenticate travel orders.

NOTE: (F) = Formal procedures required.

o Individual \$

- . Obtain (as necessary) advanced TDY \$
- . Include rental car/gas expenses
- . Other?

o Other Personal Considerations

- . International drivers license: 2 passport photos/USA Lic/3.00
- . Insurance requirements (auto/other)
- . Gas rationing problems
- . Immunizations/shot card (AR 40-562)
- . Passport/visa (AR 600-290)
- . Special clothing (AR 670-6)
- . Other: shoes/shorts/glasses (etc).

II AT TEMPORARY DUTY STATION

o Re-coordination with POC(s)

- . Date/time/place of visits
- . Alert unit POC(s) of arrival/local phone #
- . Other?

o Establish trip book/audit trail

- . Detailed itinerary
- . Inserts of material provided POC(s)
- . Inserts of material received from POC(s)
- . Detailed diary of events/perceptions (etc)

o Special Arrangements

- . Large/small conference rooms
- . Meeting with commanders/staff officers
 - . To obtain information
 - . To provide information (exit feedback)
- . Exit briefing (minimized)

III POST-TRIP ACTION

(F) o Trip Report

- . Key personnel contacted
- . Tripbook/audit trail events
- . Exit briefing notes
- o Data analysis/appropriate action.

(F) o Letter of Appreciation

JOINT TAAT - FT. HOOD
AFTER-ACTION REPORT

- o JOINT TAAT STUDY
 - . AT FT. HOOD/30 APR-4 MAY 79
 - . 61 TRAINING DISTRACTOR VISITS (ALL FORSCOM)
 - . 17 TRAINING DISTRACTOR VISITS (FT. HOOD)
 - . 14 SEPARATE TRADOC ACTIVITIES
 - . 28 SEPARATE PROJECTS
- o RESULTS
 - . SHORT STUDY SUSPENSE
 - . POOR POPULATION SAMPLES
 - . FT. HOOD STRETCHED THIN FOR BOTH TRADOC/FORSCOM NEEDS
- o CONCLUSIONS
 - . TAAT COVERS ONLY 40-50% OF TRADOC NEEDS
 - . TAAT IS OK IF:
 - . SEPARATE FORSCOM TEV/TAAT
 - . PROPERLY SCHEDULED/COORDINATED
 - . FORSCOM POC IS DESIGNATED
- o RECOMMENDATION
 - . CHANGE TAAT TO RELATE BETTER TO TRADOC NEEDS

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AUG 79

CDR TRADOC FT MONROE VA //ATSC//

AIG 891

AIG 892

CDR ADMIN CEN& FT BEN HARRISON IN

CDR USACAC& FT LEAVENWORTH KS

CDR USALOGC FT LEE VA

CDR USACDEC FT ORD CA

CDR TRADOC COMB ARMS TEST ACTV FT HOOD TX

DIR TRADOC SYS ANAL ACTT WSMRNM

INFO: CDR FORSCOM FT MCPHERSON GA//AFOP-TAT/AFLG-CL/AFOP-COR//

UNCLAS

SUBJECT: VISITS TO FORSCOM ACTIVE COMPONENT INSTALLATIONS/UNITS

A. FORSCOM MSG {AFOP-TAT} DTD 261830Z JUL 79, SUBJECT: CONSOLIDATED VISITS TO FORSCOM UNITS/INSTALLATIONS.

B. FORSCOM LTR {AFCG} DTD 23 MAR 79, SUBJECT: LOGISTICS ASSESSMENT/ ASSISTANCE TEAM {LAAT}.

C. TRADOC LTR {ATTNG-UTD} DTD 12 JUN 79, SUBJECT: FORT HOOD TRAINING ASSISTANCE/ASSESSMENT TEAM {TAAT} VISIT AFTER ACTION REPORT.

PART I. VISIT PROGRAM

DCSPER, DCSORI, DCSCD, DCSDOC, DCSRM, DCST, DCSROTC, DCSLOG, AG, ENGR, DTMA, CH PA, CH C&E, PM, IG, SDO, CONCISE, ARNG/USAR ADVISORS, CDR FLD ELEM, CDR ATSC, TRADOC LNO, ATCH, ATCS {2}

RAY C. CLARK, CPT, GS
ATTNG-UT, 4176, 3 AUG 79

HOWARD G. CROUVELL, BG, GS, 4263

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1. THIS MESSAGE ANNOUNCES THE RESULTS OF A JOINT TRADOC/FORSCOM AGREEMENT TO MANAGE VISITS TO FORSCOM INSTALLATIONS/UNITS.

2. BOTH HQ FORSCOM AND HQ TRADOC AGREE THAT TRADOC REQUIREMENTS FOR VALIDATION, SURVEY, ETC CANNOT ALL BE ENCOMPASSED IN A CONSOLIDATED VISIT PROGRAM. THIS PROGRAM, FROM A FORSCOM PERSPECTIVE, HELPS ALLEVIATE THE PROBLEM OF A CONTINUOUS STREAM OF VISITORS WHO DISRUPT TRAINING ACTIVITIES. TRADOC ACTIVITIES BENEFIT FROM A SIMPLER, QUICKER VISIT COORDINATION PROCESS AND IMPROVED ACCESS TO HOST UNIT PERSONNEL. SINCE THE PURPOSE OF THE PROGRAM IS TO REDUCE THE INTERRUPTIONS TO TRAINING AND TO MAKE TRADOC VISITS MORE PRODUCTIVE VISITS, THOSE TRADOC VISITS WHICH DO NOT DISTRACT FROM TRAINING ARE NOT INCLUDED IN THIS PROGRAM. THE OPERATIONS DIRECTORATE, ODCST, HQ TRADOC (ATTNG-OPN) IS TRADOC PROPONENT FOR THE VISIT PROGRAM.

3. THE VISIT PROGRAM CONSISTS OF FOUR PARTS AS FOLLOWS:

A. TRAINING ASSISTANCE/ASSESSMENT TEAM (TAAT): THE TAAT IS A FORSCOM PROGRAM WITH THE PURPOSE OF ASSISTING AND ASSESSING UNIT/INSTALLATION TRAINING. THE ACTIVE COMPONENT TRAINING DIVISION, ODCSOPS, HQ FORSCOM COORDINATES TAAT VISITS, WHICH MAY INCLUDE TRADOC AS WELL AS FORSCOM VISITORS. TAAT VISITS ARE UNANNOUNCED. THESE

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VISITS DO NOT SURVEY, VALIDATE OR IN ANY WAY REQUIRE TRAINING TO BE DISRUPTED.

B. LOGISTICAL ASSESSMENT/ASSISTANCE TEAM (LAAT): A FORSCOM TEAM AUGMENTED WITH PERSONNEL FROM DA, DARCOM, AND TRADOC WHICH LOOKS AT ALL ASPECTS OF MAINTENANCE AND SUPPLY PROGRAMS. THE OBJECTIVE IS TO IDENTIFY AND DEFINE RESPONSIBILITY FOR CORRECTION OF ANY DEFICIENCIES WHICH MAY BE FOUND IN THE TOTAL LOGISTICS SYSTEM. THE LAAT PROGRAM IS NOT DESIGNED FOR CONDUCT OF SURVEYS, VALIDATIONS, ETC. THE LAAT OFFICE (ODCSLOG, HQ FORSCOM) COORDINATES LAAT VISITS. THE LOGISTICS CENTER (ATCL-TG) IS PROPONENT FOR THE TRADOC PARTICIPATION IN LAAT AND WILL COORDINATE TRADOC PARTICIPATION WITH THE LAAT OFFICE PRIOR TO EACH VISIT. THE LOGISTICS CENTER IS TO PROVIDE RESULTS OF LAAT VISITS TO COMBAT SERVICE SUPPORT SCHOOLS.

C. CONSOLIDATED TRADOC VISIT (CTV): THIS PROGRAM IS BASED ON THE NEED OF TRADOC ACTIVITIES TO CONDUCT VALIDATIONS, SURVEYS, ETC. THE CTV CONSISTS PRIMARILY OF VISITS WHICH DO DISRUPT UNIT TRAINING. COORDINATION OF CTV VISITS IS ACCOMPLISHED DIRECTLY BETWEEN THE VISITING TRADOC SCHOOL/ACTIVITY AND THE FORSCOM HOST INSTALLATION/UNIT IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN PARAGRAPH 5 BELOW.

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ORDINATION WITH HOST INSTALLATION/UNIT WHEN REQUIRED, BUT TRADOC ACTIVITIES SHOULD WITHHOLD SUCH CONTACT UNTIL NECESSARY FOR VISIT CO-ORDINATION. VISIT REQUIREMENTS ARE FINALIZED BY MESSAGE WITH HOST ORGANIZATION (INFOR: HQ FORSCOM, AFOP-COR) FOURTEEN DAYS PRIOR TO VISIT.

6. THE CONSOLIDATED TRADOC VISIT SCHEDULE THROUGH MAY 1980 IS AS FOLLOWS:

<u>DATE</u>	<u>INSTALLATION/UNIT</u>
27-31 AUG 79	XVIII ABN CORPS
10-14 SEP 79	197TH INF BDE/36TH ENG GP
24-26 SEP 79	3D ACR/11 ADA
5-9 NOV 79	101ST ABN DIV
26-30 NOV 79	7TH TRANS GP
13-14 DEC 79	24TH INF DIV
7-11 JAN 80	9TH INF DIV
14-18 JAN 80	7th INF DIV
4-8 FEB 80	5TH INF DIV
25-29 FEB 80	193D INF BDE
10-14 MAR 80	III CORPS ARTY

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D. PARTNERSHIP PROGRAM. SINCE ALL TRADOC VISIT REQUIREMENTS WILL NOT FIT INTO THE CTV, HQ FORSCOM HAS PROPOSED A "PARTNERSHIP" BETWEEN SPECIFIC TRADOC ACTIVITIES AND SPECIFIC FORSCOM INSTALLATIONS/UNITS. TRADOC ACTIVITIES ARE ENCOURAGED TO ESTABLISH AND MAINTAIN POC WITH THEIR "PARTNER" INSTALLATION/UNITS. THE PROGRAM ^{PROVIDES FOR} ~~REQUIRES THE~~ CLOSE AND-CONTINUOUS COORDINATION BETWEEN PARTNERS. ^{PARTNERS WILL}

4. OTHER VISITS: A "CLEARING HOUSE" ESTABLISHED AT HQ FORSCOM COORDINATES ANY VISITS WHICH DO NOT FIT THE VISIT PROGRAM. THIS INCLUDES VISITS WHICH SHOULD BE SEPARATELY COORDINATED BECAUSE OF UNUSUAL LENGTH OR COMPLEXITY, SUCH AS VISITS TO MORE THAN ONE INSTALLATION AND TEC VALIDATIONS. CURRENT OPERATIONS DIVISION, ODCSOPS, HQ ^(AIR BOB WASHINGTON, RV 588-2105/4111) FORSCOM COORDINATES THESE VISITS. JUSTIFICATION FOR NON-PARTICIPATION IN ~~ONE OF~~ THE ABOVE VISIT PROGRAMS IS REQUIRED. ^{COORDINATION}

PART II: PLAN FOR COORDINATION OF CTV VISITS.

5. HQ TRADOC, ^{(OPED, DEST) IN COORDINATION WITH ODTLEG, HQ FORSCOM} ANNOUNCES ONE YEAR IN ADVANCE THE DATES WHEN FORSCOM INSTALLATIONS AND UNITS ARE SCHEDULED FOR MAXIMUM FEASIBLE VISITS BY TRADOC ACTIVITIES {CTV PROGRAM}. THIS SCHEDULE IS THE SAME AS THE LAAT, THEREBY HAVING TWO TRAINING DISTRACTING PROGRAMS DURING THE SAME PERIOD. TRADOC ACTIVITIES INITIATE OPEN DIRECT TELEPHONIC CO-

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17-28 MAR 80 III CORPS

28 APR - 2 MAY 80 172D INF BDE

PART III: PLAN FOR COORDINATION OF PARTNERSHIP VISITS.

7. THE FOLLOWING PAIRING OF FORSCOM INSTALLATIONS/UNITS WITH TRADOC ACTIVITIES IS A PROPOSAL: IT CAN BE MODIFIED. THE FORSCOM PARTNER'S ABILITY TO PROVIDE A SUITABLE TARGET POPULATION IS BASIC TO THE PROGRAM. TRADOC ACTIVITIES MAY BE PARTNERS WITH MORE THAN ONE FORSCOM INSTALLATION/UNIT:

FORT BRAGG

INFANTRY SCHOOL

ENGINEER SCHOOL

ORDNANCE AND CHEMICAL SCHOOL

SIGNAL SCHOOL

TRANSPORTATION SCHOOL

FORT ORD

INTELLIGENCE SCHOOL

ORGANIZATION EFFECTIVENESS

TRAINING CTR & SCH

FORT LEWIS

INTELLIGENCE SCHOOL

FORT HOOD

LOGISTICS CENTER

ARMOR SCHOOL

FIELD ARTILLERY SCHOOL

MILITARY POLICE SCHOOL

FORT RILEY

INSTITUTE FOR ~~MILITARY~~ ADMINISTRATION

ADMINISTRATION CENTER

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TRANSPORTATION SCHOOL

INFANTRY SCHOOL

FORT POLK

INFANTRY SCHOOL

FORT CARSON

ARMOR SCHOOL

QUARTERMASTER SCHOOL

FT CAMPBELL

AVIATION SCHOOL

FORT STEWART

INFANTRY SCHOOL

11TH ADA GROUP, FT BLISS

MISSILE AND MUNITION SCHOOL

8. REQUEST FOR PARTNERSHIP CHANGES/ADDITIONS SHOULD BE FORWARDED TO HQ TRADOC, ATTN: ATTNG-OPN. IMPLEMENTATION OF THE PARTNERSHIP PROGRAM IS PLANNED FOR 1 OCT 79.

FORSCOM / TRADOC TRAINING ASSISTANCE / ASSESSMENT TEAM

(TAAT)

PURPOSE: THE TAAT IS AN UMBRELLA CONCEPT TO MANAGE AND COORDINATE FORSC
AND TRADOC ASSESSMENT AND ASSISTANCE VISITS TO ENABLE THE RECIPIENT POST TO
MANAGE AND CONTROL THEIR UNITS TO PREVENT DISRUPTION OF NORMAL ACTIVITIES

FT HOOD TAAT (30 APRIL - 4 MAY 1979)

PROJECT #1

SUBJECT: COMBAT SERVICE SUPPORT PRE-COMMAND SURVEY

PROPOSER: LOGISTIC CENTER

PROJECT #2

SUBJECT: DISCUSS DIV AND CSS EMERGING DOCTRINE AND ORGANIZATIONS IN
RELATION TO DISCOM AND COSCOM

PROPOSER: LOGISTICS CENTER

PROJECT #3

SUBJECT: TASK INVENTORY VALIDATION SURVEY 19J10/40 (M60A2 CREWMAN)

PROPOSER: ARMOR CENTER

PROJECT #4

SUBJECT: ARMOR SCHOOL GRADUATE SURVEY

PROPOSER: ARMOR CENTER

PROJECT #5

SUBJECT: DISCUSSIONS ON TRAINING FACILITIES, RESOURCES REQUIREMENTS, AND
PLANS TO SUPPORT NEW DOCTRINE/EQUIPMENT

PROPOSER: ARMOR CENTER

PROJECT #6

SUBJECT: TRAINING/LOGISTICS PROBLEMS

PROPOSER: ARMOR CENTER

PROJECT #7

SUBJECT: ASSESSMENT OF ARMOR TRAINING PROGRAM AND WRITTEN MATERIALS

PROPOSER: ARMOR CENTER

PROJECT #8

SUBJECT: ARMOR BN KEY 03/55 QUESTIONNAIRE

PROPOSER: ARMOR CENTER

PROJECT #9

SUBJECT: VALIDATE TASK LISTS

PROPOSER: USA SIGNAL CENTER

PROJECT #10

SUBJECT: FIELD EVALUATION VISIT MOS 31E, 31V, 31Z, 32Z, 35B, 35K, 35L, 35M,
35P, 35R, 36C, 36K

PROPOSER: SIGNAL CENTER

PROJECT #11

SUBJECT: VALIDATION OF SQT MOS 63B, C, F, H

PROPOSER: ORDNANCE CENTER AND SCHOOL

PROJECT #12

SUBJECT: VERIFY/IDENTIFY MOS 68D TASK LIST

PROPOSER: TRANSPORTATION SCHOOL

PROJECT #13

SUBJECT: FIELD VALIDATION OF SQT 4, 68J/M

PROPOSER: TRANSPORTATION SCHOOL

PROJECT #14

SUBJECT: SURVEY OF BN/DISCOM COMMANDERS TO VERIFY ACTIVITIES OF
SPECIALITIES 71 AND 88

PROPOSER: TRANSPORTATION SCHOOL

PROJECT #15

SUBJECT: MOS 67 TASK ANALYSIS

PROPOSER: TRANSPORTATION SCHOOL

PROJECT #16

SUBJECT: JOB DATA AND TASK ANALYSIS FOR MOS 68H

PROPOSER: TRANSPORTATION SCHOOL

PROJECT #17

SUBJECT: EVALUATE EFFECTIVENESS OF CAC PRODUCTS

PROPOSER: COMBINED ARMS CENTER

PROJECT #18

SUBJECT: DISCUSS BATTLE SIMULATIONS

PROPOSER: COMBINED ARMS CENTER

PROJECT #19

SUBJECT: SQT WRITTEN COMPONENT VALIDATION (MOS 55)

PROPOSER: MISSILE AND MUNITIONS CENTER

PROJECT #20

SUBJECT: EVALUATION OF FORT HOOD NCOA

PROPOSER: TRADOC

PROJECT #21

SUBJECT: OPEN SYSTEM PLANNING TOE

PROponent: ORGANIZATIONAL EFFECTIVENESS TRAINING CENTER

PROJECT #22

SUBJECT: EVALUATION SURVEY OF MOS 12B10, 12C10, 12C50, 3F10, 52C10, 52D10,
62B10, ANCOC, EOBC

PROponent: ENGINEER SCHOOL

PROJECT #23

SUBJECT: MOS SURVEY (TACTICAL COMMO)

PROponent: FIELD ARTILLERY SCHOOL

PROJECT #24

SUBJECT: VALIDATION OF MATH TEST AS SELECTION CRITERION FOR FIRE DIRECTION
COMPUTER TRAINING (81MM/4.2 MORTAR)

PROponent: INFANTRY SCHOOL

PROJECT #25

SUBJECT: VALIDATE IIB JOB/TASK ANALYSIS

PROponent: INFANTRY SCHOOL

PROJECT #26

SUBJECT: USER SURVEY OF TACTICAL UNIT FINANCIAL MANAGEMENT SYSTEM (TUFMIS)

PROponent: FORT BENJAMIN HARRISON

PROJECT #27

SUBJECT: DETERMINE 76Y10 AIT GRADUATE LEVEL OF PERFORMANCE

PROponent: LOGISTICS CENTER

PROJECT #28

SUBJECT: SURVEY OF NON 76Y PERSONNEL OCCUPYING 76Y SUPERVISORY POSITIONS

PROponent: LOGISTIC CENTER

TAAT PROJECT #25

1. Subject: Validate 11B Job Tasks Analysis
2. Proponent: Infantry School.
3. Team Composition: CPT Crandall plus five others
4. III Corps POC
1st Cavalry Division POC
2d Armored Division POC
 - LTC Deming, 685-4211
 - CPT Purvis, 685-2528
 - CPT Clark, 685-2701
5. Requirements:
 - a. Personnel: * 90 E5/6, SL, 11B
 60 E6/7, PS, 11B
 30 O1/2, PL, INF
 * Split equally between divisions.
 - b. Facilities: 1 May - Classroom 180 personnel
 2-3 May - Four iterations of six (7-8 men) groups
 for four hours.
 - c. Transportation: 1/4 Ton or sedan.
 - d. Administrative: None.
6. Unit/Date/Time/Building

2d Armored Division	1 May	0800-1700	10051
1st Cavalry Division	1 May	0800-1700	10051
2d Armored Division	2 May	0800-1700	10051
1st Cavalry Division	2 May	0800-1700	TBD
7. Coordinating Instructions: Escort required from 2d Armored division on 1 and 2 May. Escort from 1st Cavalry Division required on 3 May.

USAIS CONCEPT

VALIDATE MOS IIB SKILL LEVEL 3 & 4 TASK LIST

INTERVIEW JOB ENCUMBENTS AND SUPERVISORS:

FILL IN GAPS.

HOW IS SOLDIER'S MANUAL USED ?

FEEDBACK ON OTHER TRAINING SUPPORT ITEMS.

RESULTS

SQT BOOK

NON-SQT TNG ? !!

JOB BOOKS

SM/ARTEP INTERFACE

POT AND CIRCLE TNG

SYSTEM ? !!

LEADERSHIP (SOFT) SKILLS

SURE I HAVE A SM.

... AND YOU TELL THAT !!? X? GENERAL THIS IS FROM ME.

UKAT I

IDENTIFYING, MEASURING, AND TRAINING "SOFT SKILL" COMPETENCIES WHICH PREDICT PERFORMANCE IN PROFESSIONAL, MANAGERIAL, AND HUMAN SERVICE JOBS

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Introduction

This paper will describe a new personnel procedure, Job Competence Assessment (JCA), which has been successfully used to identify "soft skill" competencies which predict performance in professional, managerial, and human service jobs.

I can best introduce the Job Competence Assessment method by providing an example from one of the seminal projects in which it was used.

In the early 1970s, McBer and Company was approached by the United States State Department for assistance in selecting and assessing the performance of Junior Foreign Service Officers (FSOs). Traditionally, the State Department had selected Foreign Service Officers through the use of a Foreign Service Officer exam. This exam was based on the hypothesis of senior statesmen officials that the skills required for effective performance as a modern diplomat were essentially "liberal arts" knowledge and culture: American history, Western civilization, verbal fluency, and such specialities as economics and government. Typical items on this exam presented an aspiring FSO with a line of Greek poetry, followed by a multiple choice question as to the line's author: Aeschylus, Sophocles, Euripides, Aristophanes.

This exam had two principal drawbacks. First, it was quite discriminatory: Minorities and others from less privileged, "cultured" backgrounds were much less likely to pass it. Second, and more importantly, performance on this test not only did not predict performance as a Foreign Service Officer, but scores were actually negatively correlated with ratings of on-the-job performance (McClelland & Dailey, 1973).

McBer was asked to develop a methodology to answer the obvious question: If verbal fluency and cultural content knowledge do not predict FSO performance, what skills and competencies do? The Job Competence Assessment methodology used to answer this question consisted of the following steps.

First, the State Department was asked to identify, through a variety of techniques (including supervisory, peer, and client nominations and ratings) one criterion sample of its best Junior FSOs and another of average FSOs.

Second, superior and average performers were interviewed using an in-depth "Behavioral Event Interview" (BEI) technique. This method, developed by Harvard University psychology Professor David C. McClelland and colleagues at McBer and Company (McClelland, 1976) is derived from Flanagan's (1954) classic Critical Incident Method.

It asks interviewees to identify the most critical situations they have encountered on their jobs and describe these situations in considerable narrative detail: What led up to the situation? Who was involved? What did the interviewee think about, feel, and want to accomplish in dealing with the situation? What did he or she actually do? What was the outcome of the incident? McClelland's method goes beyond Flanagan's, however, in that it includes thematic apperception test probes which elicit data about the interviewee's personality and cognitive style (e.g., achievement motivation or convergent thinking ability).

Third, interview protocols were content analyzed to identify characteristics and behaviors which distinguished superior from average job incumbents.

Fourth, hypotheses about competencies which discriminated superior from average performers were tested in two types of cross-validation designs. Additional interviews were conducted with a second set of superior and average job incumbents. These interviews were empirically coded for elements which distinguished the two groups in the first criterion sample. (Empirical coding of interviews can be done with high interrelater reliability, $r_s = .80 - .90$, providing quantitative data that can be used in standard statistical tests of significance.) Objective tests were then developed to measure the presence of competencies causally related to the behaviors reported in the behavioral event interviews. Discriminate function analysis techniques were used to see how well interview and test variables derived from the competency model, based on the first criterion sample, predicted classification of superior versus average performance in the second validation sample.

The findings of the State Department study were very interesting. The types of competencies which discriminated superior from average Foreign Service Officers were such soft skills as:

- nonverbal empathy: the ability to "hear" what a person from a foreign culture was really saying or meaning in a negotiation;
- a skill we wound up calling "speed in learning political networks," the ability to very quickly figure out in a foreign capital that it was the Prime Minister's executive assistant's mistress' nephew that really called the shots in a particular area of foreign policy--and how to get to this nephew; and
- positive expectations, or what Rosenthal (1976) calls "the Pygmalion effect": a strong belief in the underlying dignity and worth of others different from oneself, and the ability to maintain this positive outlook under stress.

These and other nontraditional "soft skill" competencies did demonstrate criterion validity in predicting Foreign Service Officer performance at statistical levels of significance and proved not to be discriminatory on racial, sexual, or SES background bases.

This Job Competence Assessment process has now been used to identify the "soft skills" which predict performance in more than 50 professions, from manufacturing managers and computer design engineers in high technology industries, to paraprofessional human service workers in New York City, to United States naval officers.

The Job Competence Assessment Process

The Job Competence Assessment process has since been elaborated to include some of the job task/function analysis techniques prescribed in the DOD's FSO model, and the job element analysis methods developed by civil service researchers (Primoff, 1977). The present process remains, however, based on the assumption that the best way to identify the knowledge, skills, or other abilities needed to perform competently in a job is (1) to identify the most effective performers in that job; (2) study what these people actually do that distinguishes them from individuals whose performance is less satisfactory; and (3) identify the specific skills, abilities, or characteristics which are responsible for this difference.

The current Job Competence Assessment process, now being used to identify competencies of effective Army Organizational Effectiveness Staff Officers, consists of eight steps (see Figure 1).

(1) Define Performance Effectiveness Criteria

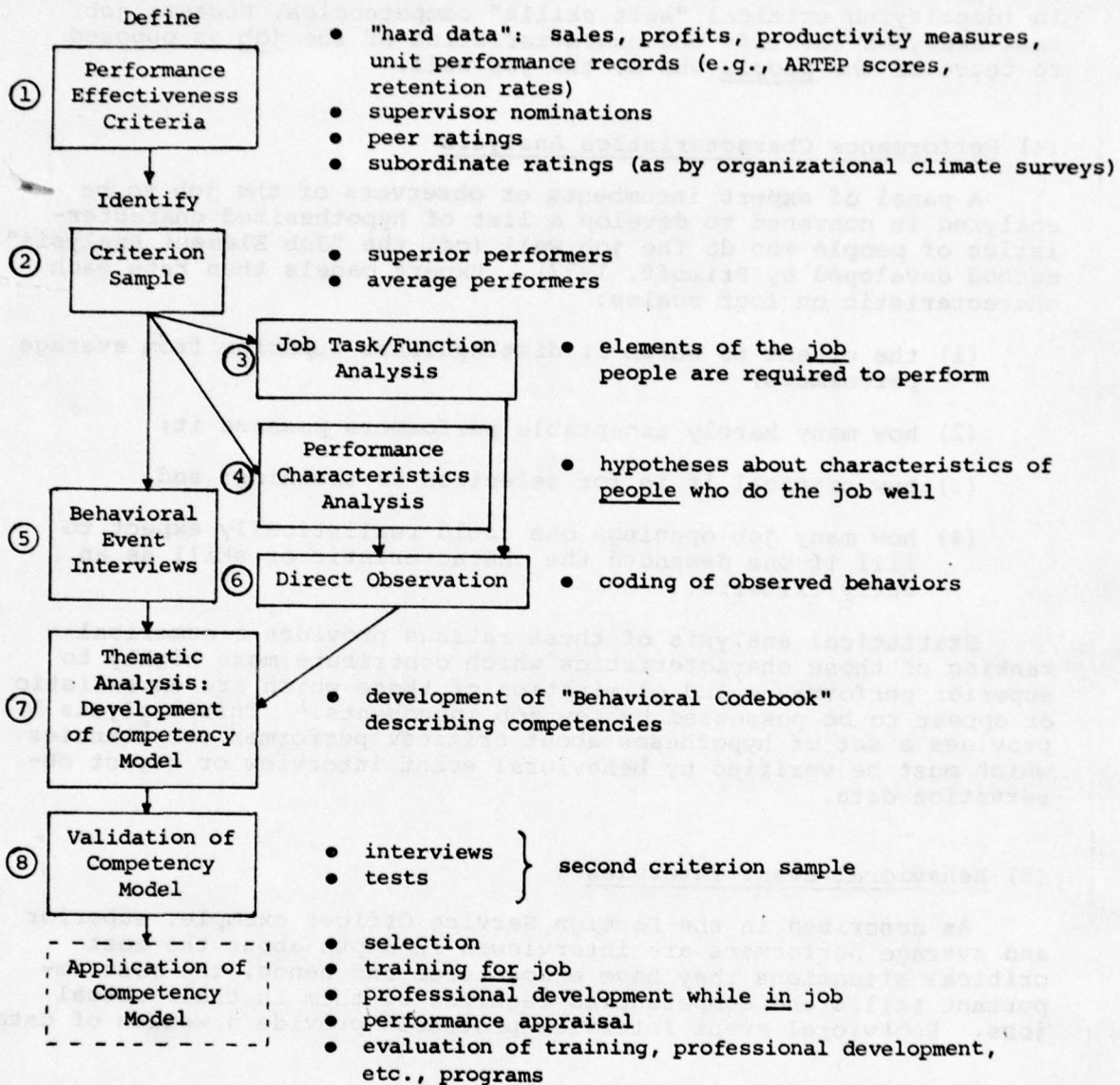
To identify superior job incumbents, it is first necessary to define measures of performance effectiveness in a given job. Ideal criteria are "hard" outcome measures, such as sales or profits data in industry, or unit performance outcomes, such as ARTEP scores or retention rates, for military officers. In the absence of such criteria, supervisor nominations and peer ratings can be used. (Recent reviews by Lewin and Zwany, 1976, and Kane and Lawler, 1979, indicate that these ratings have high criterion validity.) Supervisory and peer ratings can in some cases be supplemented with client or subordinate ratings (e.g., those available from organizational climate surveys).

(2) Identify Criterion Sample

Job incumbents who are consistently rated superior on a number of different performance criteria provide a standard for comparison analyses with a sample of average performers in the remaining steps of the process.

FIGURE 1

Schematic of the Job Competency Assessment Process



(3) Job Task/Function Analysis

A job task or function analysis by traditional time-log, panel, or direct observation methods can be used to supplement the data collected in the Job Competence Assessment process, although for reasons which will be discussed below, this method is less useful in identifying critical "soft skills" competencies, because job task analyses identify the characteristics of the job as opposed to those of the people who do the job well.

(4) Performance Characteristics Analysis

A panel of expert incumbents or observers of the job to be analyzed is convened to develop a list of hypothesized characteristics of people who do the job well (cf. the "Job Element Analysis" method developed by Primoff, 1977). Expert panels then rate each characteristic on four scales:

- (1) the extent to which it distinguishes superior from average performers;
- (2) how many barely acceptable performers possess it;
- (3) how critical it is for selection or training; and
- (4) how many job openings one could realistically expect to fill if one demanded the characteristic or skill as an entry criteria.

Statistical analysis of these ratings provides a numerical ranking of those characteristics which contribute most highly to superior performance and elimination of those which are unrealistic or appear to be possessed by few job incumbents.¹ This analysis provides a set of hypotheses about critical performer competencies which must be verified by behavioral event interview or direct observation data.

(5) Behavioral Event Interview

As described in the Foreign Service Officer example, superior and average performers are interviewed in-depth about the most critical situations they have encountered and hence, the most important skills and competencies required of them in their actual jobs. Behavioral event interview protocols provide a wealth of data

¹ An element will be rated highly (1) if it distinguishes the superior performer; (2) if very few barely acceptable performers have it; (3) if trouble is likely if it is not considered in selection or training; and (4) if it is realistic to fill at least some jobs by demanding it. Conversely, an element will receive a low rating (1) if it does not distinguish the superior performer; (2) if almost all barely acceptable performers possess it; (3) if one can safely ignore it in selection and training; and (4) if all jobs can be filled by demanding it. (See equations in Primoff, 1977.)

for the identification of soft skill competencies and a very specific description of job behaviors. (A significant "by-product" of these interviews is the generation of numerous situation and problem narratives which can be used to develop highly relevant training materials--e.g., case studies and simulations.)

(6) Direct Observation

Where possible, direct observation can be used to verify job task analysis, performance characteristics, hypotheses, and behavioral event interview data. As will be discussed below, empirical "assessment center" behavioral coding schemes (Bales, 1969; Bales, Cohen, & Williamson, 1979) provide perhaps the most valid method of measuring soft skill competencies.

(7) Thematic Analysis and Development of a "Competency Model"

Data from the job task performance characteristic analysis and behavioral event interviews are subjected to a rigorous content analysis procedure to identify the behavioral patterns and personality characteristics which distinguish superior from average job incumbents. This is the most difficult and creative step in the JCA process. Two or more trained analysts examine the data and attempt to define competency elements which are differentially present or absent in the data on superior as compared with average performers. These elements are refined until they can be recognized with acceptable inter-rater reliability. A detailed and specific "behavioral code book" is prepared to facilitate empirical coding of interview data. These data are then used to test the criterion validity of the model. The behavioral code book, which describes the soft skill competencies that predict performance in the job, provides the "competency model" for the job.

(8) Validation of the Competency Model

As described in the Foreign Service Officer example, the competency model derived in Step 7 can be cross-validated by (1) collecting behavioral event interview data on a second criterion sample and seeing if a discriminant functions analysis based on the first study predicts successful as opposed to average performers in the second sample; and/or (2) constructing objective tests to measure the competencies derived from the competency model and using test scores from a second criterion sample to test the model's criterion and predictive validity.

Application of the Competency Model

Once validated, the competency model can be used in a variety of ways: as the basis for the design of selection tests, assessment centers, performance appraisal systems and training and professional development programs, and as a source of criteria for the evaluation of training programs.

Comparison of Job Competence Assessment With Other Job Analysis Methods

It is useful to examine how the Job Competence Assessment method differs from and can address some of the limitations in traditional job analysis techniques. Three traditional approaches to defining selection and training criteria can be distinguished:

- (1) Content Knowledge or Theory-Based Systems which specify, on the basis of theory, the knowledge skills which should be important for a person to have in order to do a job.
- (2) Expert Panel: the characteristics which experts, tasked to determine by consensus, think are important for a person to have in order to do the job (represented in the Job Competence Assessment process by the performance characteristics analysis step).
- (3) Job Task/Function Analysis: identification of the task functions that make up the job which are used to infer the knowledge and skills needed by the people who occupy the job.

Theory and panel methods have three distinct limitations. First, they lack supporting empirical data to show that the knowledge or skill characteristics they posit are in fact related to on-the-job performance. An example was the humanistic psychology courses which swept the military a few years back: Civilian academic management theories and strongly-held beliefs on the part of a few persons led to the implementation of "leadership" courses, which taught and prescribed "humanistic" communications techniques in the absence of any data to show that these techniques had in fact anything to do with effective leadership in military organizations.

Second, theory and panel methods tend to identify so-called "folklore" or "motherhood" items (such as "integrity," "perseverance" or "moral courage") which sound good and are seen as qualities that all job incumbents should have, but which may or may not be related to performance on the job. For example, in the State Department study, "writing skills" was agreed upon as necessary for superior performance of Foreign Service Officers. The

Job Competence Assessment process found that despite the fact that "everyone knew" that writing skills were important, this ability did not in fact differentiate superior from average performers. What was important was the ability to write with sensitivity to political issues.

The third shortcoming of theory and panels is that the data they generate are not sufficiently behaviorally specific to provide practical selection or training criteria. For example, it is difficult to define "concern for people" in observable terms. How does one manifest concern? What does this mean? It turns out that what has usually been identified as "concern for people," affiliation motivation, or the desire to establish close friendly relations with others has consistently been found to be negatively related to effective performance in managerial roles (McClelland & Burnham, 1976). Effective concern for people, at least for industrial and military leaders, is not a function of affiliation needs, but rather the combination of a skill called accurate empathy (the ability to understand what others are saying) and power or influence skills (the ability to empower others to make them feel more capable of solving their own problems).

Job tasks/function analysis methods also have limited utility in identifying soft skills. The unit of analysis is the job, not the person who performs the job well. For example, a job task analysis statement for a mechanical engineer might be "designs gears." This is accurate enough but says nothing about what enables an engineer to design a gear well. Behavioral event interviews with superior engineers indicate that they have an underlying competency which might be labeled "three dimensional eidetic rotational imagery." For example, in behavioral event interviews, better engineers described an ability to mentally "image" and mutate physical objects in three dimensions, imaging different configurations until they arrive at an optimum design. Some even reported bringing other senses into play as well (e.g., "I sort of became the gear and tried to feel where I would hurt or break if under stress--sounds crazy, but it led me to 'seeing' the need to thicken a flange..."). This cognitive competency did not appear in average engineers' interview protocols. Similarly, in studies of Army Organizational Effectiveness Staff Officers (internal organizational development consultants), an important job function appeared to be "contracting with clients" (i.e., negotiating with the service recipient to agree on just what services the consultant would provide). This functional statement, however, does not specify what consultant skills lead to effective contracting. All consultants contract, but only some do it well. A key soft skill competency in this case proved to be "accurate empathy": more effective consultants were better able to "hear" their clients' underlying concerns.

In each case, job task analysis methods can identify what people do, but not the nuances of professional skill that enable some persons to perform a task more effectively than others. Lists of tasks,

such as "writes memos" or "communicates orally to subordinates," are of little use without supplementary information about the competencies a superior job incumbent uses to make these communications effective (e.g., accurate empathy, political sensitivity, or such influence methods as assertive persuasion).

Second, job task analyses tend to be too detailed to be practical (e.g., lists of the 4,300 discrete behaviors required in driving a car or the 3,001 functions performed by a teacher). Such analyses may be useful for describing specific technical tasks (for example, the steps in trouble-shooting a radio), but provide too much information in the wrong form to be helpful in teaching soft skills.

Finally, job task analyses are not selective. The well-known Praeto rule indicates that only a critical 20 percent of the functions a person performs on the job account for 80 percent of performance. The remaining 80 percent of all job functions are routine maintenance activities which do not distinguish successful from average performers. Job tasks/function analysis lists, particularly in the absence of a criterion sample, can not distinguish the important functions from all the functions that a job incumbent performs.

The Job Competence Assessment method overcomes some of the limitations of theory, panel, and job task analysis techniques and can supplement them in the identification of critical soft skills. First and most importantly, the JCA method goes beyond espoused theories and job descriptions to identify the personal characteristics and skills important to effective performance of specific job functions.

Second, the behavioral event interview makes it possible to document these soft skill competencies with sufficient behavioral specifics that they can be used to assess and train others.

Third, the JCA method is selective: The critical incident interview approach necessarily focuses on the "critical 20 percent" of knowledges, skills, abilities, and other characteristics most important to performance as opposed to the large number of ancillary behaviors associated with routine functions.

Application of Job Competence Assessment Methods to Measuring and Training Soft Skills

It may be useful to briefly describe some of the methods developed from the Job Competence Assessment procedure for measuring and training to soft skills.

Measuring Soft Skills

There are three commonly used "soft skill" assessment methods:

- (1) Paper-and-pencil tests of knowledge content, cognitive ability (e.g., critical thinking or decision making), and personality variables (e.g., attention to detail and concern for influence). In general, operant tests (e.g., essay exams or projective instruments), which require test-takers to generate behavior, are more useful than respondent measures (e.g., multiple choice exams) which ask test-takers to choose among items. Reviews suggest the criterion validity of multiple-choice tests rarely exceeds $r = .33$ or 10 percent of the observable variance (Ghiselli, 1966; Mischel, 1968).
- (2) Superior and/or peer ratings of job incumbents on the basis of general performance or aptitude for a job. Recent reviews indicate the criterion validity of such ratings is somewhat better than that of paper-and-pencil tests: $r = .40 - .45$ or 16 - 20 percent of the variance (Lewin & Zwany, 1976; Kane & Lawler, 1979).
- (3) Observer ratings of performance on simulated job-specific tasks (e.g., ratings of military officer performance in such assessment center exercises as giving a presentation or managing a leaderless group). Reviews of the predictive validity of assessor scores is better still: $r = .50 - .60$ or 25 - 30 percent of the variance (MacKinnon, 1975).

Our research indicates that operant tests are much more effective in measuring soft skills than are respondent knowledge content tests. For example, in assessing influence skills, it is much better to measure individuals' ability to make an effective argument (an operant performance) as opposed to their ability to recognize an effective argument on a multiple-choice test. In general, simulated job performance tests are more predictive than operant paper-and-pencil tests.

Very frequently, the operant test items or situations and test scoring criteria for specific soft skill competencies can be derived from behavioral event interview data and the behavioral code book which describes the competency model for a job. A better score on such tests is what superior performers actually do as opposed to what average performers do. Two examples from the Navy officer competency model may be helpful here.

Figure 2 provides examples from an operant coding system for critical thinking, the cognitive ability to make inferences or draw critical distinctions from large amounts of confusing, conflicting data, and cite specific data to support one's inference.

FIGURE 2

Example from an Operant Coding System for "Critical Thinking" (from Winter & McClelland, 1978)

Procedure: a subject is asked to compare and contrast two conflicting analyses of or statements about a stimulus or set of data

Coding System for scoring subjects' response:

- 1: no critical distinction nor inference; affective bias (e.g., "I liked analysis 1 and disliked analysis 2.")
- 0: no critical distinction nor inference; no affective bias
- +1: critical distinction or inference, but no mention of supportive data (e.g., "Analysis 1 identifies the problem as X, where Analysis 2 identifies it as Y.")
- +2: critical distinction with mention of supportive data
- +3: critical distinction or inference with mention of data pro and con one's inference; probabilistic or weighted reconciliation of conflicting data

Critical thinking is important because it appears to be a generic competency of superior performers in almost every field: Better Navy officers, better counselors, better organic chemists, better medieval literature students, better lawyers, etc. all are higher in critical thinking ability.

The procedure for giving this test is to ask a subject to compare and contrast two conflicting statements or analyses of a situation or set of data. The content of the stimulus or data is not important. It can be drawn from any knowledge area or profession; for example, two conflicting tactical plans for an infantry officer, or two conflicting analyses of the same organic compound for an organic chemist.

The coding system for scoring subjects' operant responses is summarized in Figure 2. At low levels of critical thinking, subjects are unable to make a critical distinction or inference between the two sets of data and may show affective biases (e.g., "I liked Analysis 1 and disliked Analysis 2"). At higher levels of critical thinking, persons are better able to make critical distinctions or inferences, cite data to support their positions, and reconcile conflicting data pro and con their inferences (i.e., reason probabilistically or reconcile conflicting data by weighting opposing statements).

Subjects' behavioral event interview protocols can be coded for this dimension, as can their memoranda, arguments in leaderless case discussions, essay responses to problem analysis tests, and the like.

A second example of operant coding of a critical soft skill competency, "accurate empathy" or understanding, is provided in Figure 3. This is a generic competency evidenced by superior performers in a wide range of professional, managerial, and human service workers jobs.

For example, a somewhat surprising finding of our Job Competence Assessment studies of Navy officers was that they spent a sizable amount of their time counseling subordinates, and that superior officers were significantly more proficient in counseling skills. The coding and scaling system provided in Figure 3 is taken from a competency-based training module designed to teach naval officers advising and counseling skills.

Accurate empathy is an assessment of the extent to which the person can accurately hear the content, meaning, and feeling of what another person is saying. This variable is measured by coding the response a subject makes to a live, audio-tape, or written stimulus statement made by a "counselee." The coding system for accurate empathy recognizes three elements: the respondent's accuracy as to (1) the content of what the counselee is talking about; (2) the counselee's meaning (i.e., why he or she is concerned

FIGURE 3

Example:
An Operant Coding System for "Accurate Empathy"
(from Carkhuff, 1969)

Procedure: a subject is asked to make an appropriate counseling response to a taped or live statement made by a "counselee"

Understanding (accurate empathy): measures the extent to which the counselor accurately hears the content, meaning, and feeling (type of feeling and intensity of feeling) of what the counselee is saying.

- Content: what the person is talking about--his wife, her job, an alcohol problem, etc.
- Meaning: why the person is talking about it--"You are talking about, because..." (e.g., wife, because she's leaving him; job, because she's not doing it as well as she could, etc.)
- Feeling: how the person feels--the feeling word the person uses.

--type of feeling: sad, angry, frustrated

--intensity of feeling: for example, for anger, where on a scale from "mildly irked" to "blind rage"

For example, to a person who has received a "Dear John" letter, the counselor says:

UNDERSTANDING

①	②	③	④
Content, meaning, feeling absent or wrong	Content accurate; meaning, feeling absent or wrong	Content and meaning accurate; feeling in- accurate or wrong	Content, meaning, feeling all accurate
"Nice weather, isn't it?" "So what?-- get back to work."	"Sounds like you got marriage problems."	"Your perfor- mance was off today because you got some bad news."	"You were too up- set to work because you got that letter from your wife."

about the content); and (3) the counselee's feeling, both the type of affect and the intensity of affect expressed about the content and meaning.

For example, at a low level of accurate empathy, a Navy officer may respond to a subordinate who has received a "Dear John" letter with a curt, "Tough luck. Get back to work.", or a completely content-irrelevant response such as, "Nice weather, isn't it?" At higher levels of accurate empathy, the officer understands and reflects the subordinate's feelings in the context of their content and meaning (e.g., "You're really shook up because of that letter you got from your wife."). A response of this type makes the subordinate feel understood and facilitates his or her coping with stressful feelings.

A large body of literature indicates that accurate empathy is a critical competency for all types of professionals (e.g., doctors or lawyers, persons in helping positions) (Carkhuff & Berenson, 1976). More recently, it has also been found to be a critical skill for leaders and managers, underlying what is called "concern for people." (It should be emphasized that accurate empathy is not sympathy, feeling what the other feels, but rather understanding, knowing what the other feels, which enables a manager to make the appropriate response to help a subordinate solve a personal problem.)

The important thing about such operant coding systems for any soft skill competency is that they are both highly interrater reliable (i.e., can be accurately recognized) and demonstrate predictive validity (i.e., can be shown to be causally related to superior job performance). Perhaps even more importantly, once soft skills can be defined in this level of behavioral detail, they can be readily taught to others; which leads me to my final subject, training in soft skills.

Training in Soft Skills

Until recently, many educators have been skeptical about the extent to which it is possible to teach or train people in such soft skill competencies (e.g., achievement motivation, critical thinking, accurate empathy, or skillful use of influence). Over the past 25 years, McClelland (McClelland & Winter, 1971) has conclusively shown that achievement motivation, an important cognitive affective competency which predicts success in jobs requiring entrepreneurial initiative, can be taught. The method McClelland prescribes for training to such a competency is relatively simple. It involves (1) teaching people the behavioral coding system for the competency in great detail; (2) practice in assessing their own and other's behaviors in achievement motivation terms; (3) setting specific goals and defining action steps for using the

competency, first in a supportive training environment, and then in creasingly in real life. Persons trained in achievement motivation show significant increases in personal income, career advancement, business sales and profits, and create more capital and jobs. (Miron & McClelland, 1979).

In recent work in developing competency-based leadership and management courses for the United States Navy, McBer has developed a fairly standard five-step competency training procedure (Spencer, 1978) which incorporates and expands upon McClelland's principles. I will briefly describe how each of these steps is used to teach the two competencies discussed above under measurement of soft skills, critical thinking, and accurate empathy.

Recognition

Trainees are presented with a difficult case or a simulation problem-designed to produce a "shock of recognition" in which they realize that they actually encounter problems calling for the use of the competency in question in their real jobs, and that they often have trouble dealing with these problems. For example, trainees may be given a complex analytical task which requires critical thinking or be asked to counsel a subordinate in distress in a role-play. The cases and simulations used are drawn from actual critical incidents collected during the behavioral event interview phase of the Job Competence Assessment process. The recognition step is designed to introduce the competency in an experiential way and create specific motivation for learning.

Explanation

Trainees receive practical conceptual input on the competency via readings, lectures, or demonstrations. For example, in the module on critical thinking, trainees are given a lecture on the importance of critical thinking in their field, are taught the critical thinking coding system, and score actual case problem analyses for critical thinking. In a counseling module, trainees are similarly taught the accurate empathy scoring system and then code video-taped demonstrations illustrating lower and higher stages of empathy behavior. Recent research indicates that trainees can quickly acquire a very high degree of reliability ($r = .95+$) when exposed to behaviorally specific examples of discrete points on a scale (Lawton & Borman, 1978).

Self-Assessment

Trainees receive operant test feedback on their performance on the competency factors which predict superior performance. This feedback in effect tells them, "This is how the superstars in your billet perform on these dimensions, and this is how you perform," which provides trainees with very specific motivation, direction,

and goals for change. Knowledge of the behavioral coding scheme imparted in Step 2 enables trainees to grasp quickly and see exactly what they are doing effectively or ineffectively in terms of a given soft skill competency.

Skill Practice

Trainees practice using the competency skills they have been taught. For example, the best way of practicing critical thinking is repeated exposure to analytic case discussions of the type pioneered by Harvard's Law and Business Schools. Students who are repeatedly asked to analyze complex case problems to respond to the insistent questions "What's the problem? Who has it? What are your data?" rapidly gain in the ability to draw critical distinctions and inferences from complex information. (Incidentally, our studies indicate that the case method effectively teaches two competencies; critical thinking and assertive persuasion skills, the ability to "think on one's feet" and articulately defend one's analysis of a situation, or proposed solution to a problem.)

In practicing accurate empathy, students conduct repeated real or simulated counseling sessions which are recorded on video or audio tape, then play back and score their responses on the accurate empathy scale, continuing this process until they reach a mean level of 3 on a 4-point scale, the level which predicts successful performance (Carkhuff & Berenson, 1976).

Job Application

In the final step, trainees identify situations in which they will use the competency in their jobs and set goals, anticipate obstacles, and develop an action plan for doing so. This step reinforces the relevance of the training, translates it back into a real job performance context, and increases the likelihood that any soft skill competency learned will be in fact used back on the job.

In summary, the Job Competence Assessment process identifying, measuring, and training soft skills provides a number of benefits. It permits description, in very specific behavioral terms, not only of the elements of a job but the characteristics and skills of the persons who do the job well. These behavioral indices can be used in a variety of personnel functions: development of non-discriminatory selection tests and interview processes and competency-based performance appraisal, "efficiency" or evaluation reports, and the design and evaluation of training programs. Competency-based selection, assessment, and training procedures provide empirical, reliable, predictively valid and face valid methods of defining the soft skills associated with competent job performance: what superior incumbents actually do in their real jobs.

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JOB COMPETENCY ANALYSIS

o ELEMENTS OF JOB

VS

o PEOPLE WHO DO JOB WELL

ANALYSIS METHODS

1. Content knowledge/"theory"
2. Expert Panels
 - o No Data - Often Doesn't Predict
 - o Folklore, "Motherhood" Items
 - o Not specific: "Concern for People"
3. Job Task Analysis
 - o Job, not people who do job well
 - "Contract with Clients"
 - "Design Gears"
 - o Too Detailed
 - o Not Selective: 80/20 Rule
4. Competency Assessment
 - o People who do Job Well: Predictive
 - o Specific "Soft Skills"
Measurement, Training
 - o Selective

MEASURES

OPERANT
VS
RESPONDENT

- o TESTS
- o RATINGS
- o ASSESSMENT CENTER
EMPIRICAL CODING OF
BEHAVIOR

TRAINING - CAN YOU DO IT?

1. Recognition: Skill important to job
2. Understanding: Learn "scoring system"
3. Self-assessment: Self vs "superstar"
4. Skill Practice: To criteria
5. Job Application: Goal Setting Action Planning

Schematic of the Job Competency Assessment Process.

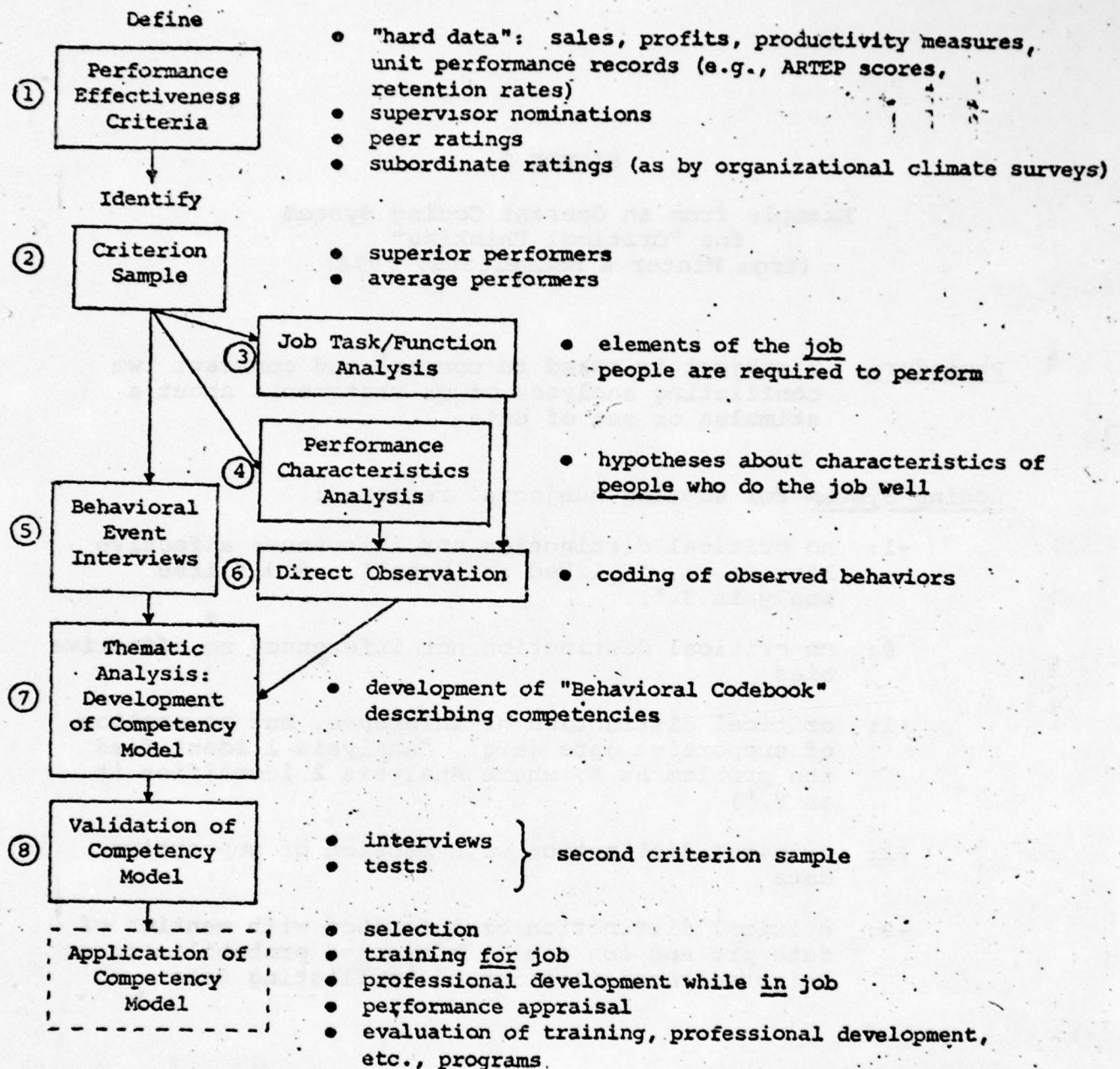


FIGURE 2

Example from an Operant Coding System
for "Critical Thinking"
(from Winter & McClelland, 1978)

Procedure: a subject is asked to compare and contrast two conflicting analyses of or statements about a stimulus or set of data

Coding System for scoring subjects' response:

- 1: no critical distinction nor inference; affective bias (e.g., "I liked analysis 1 and disliked analysis 2.")
- 0: no critical distinction nor inference; no affective bias
- +1: critical distinction or inference, but no mention of supportive data (e.g., "Analysis 1 identifies the problem as X, where Analysis 2 identifies it as Y.")
- +2: critical distinction with mention of supportive data
- +3: critical distinction or inference with mention of data pro and con one's inference; probabilistic or weighted reconciliation of conflicting data

FIGURE 3

Example:
An Operant Coding System for "Accurate Empathy"
(from Carkhuff, 1969)

Procedure: a subject is asked to make an appropriate counseling response to a taped or live statement made by a "counselee"

Understanding (accurate empathy): measures the extent to which the counselor accurately hears the content, meaning, and feeling (type of feeling and intensity of feeling) of what the counselee is saying.

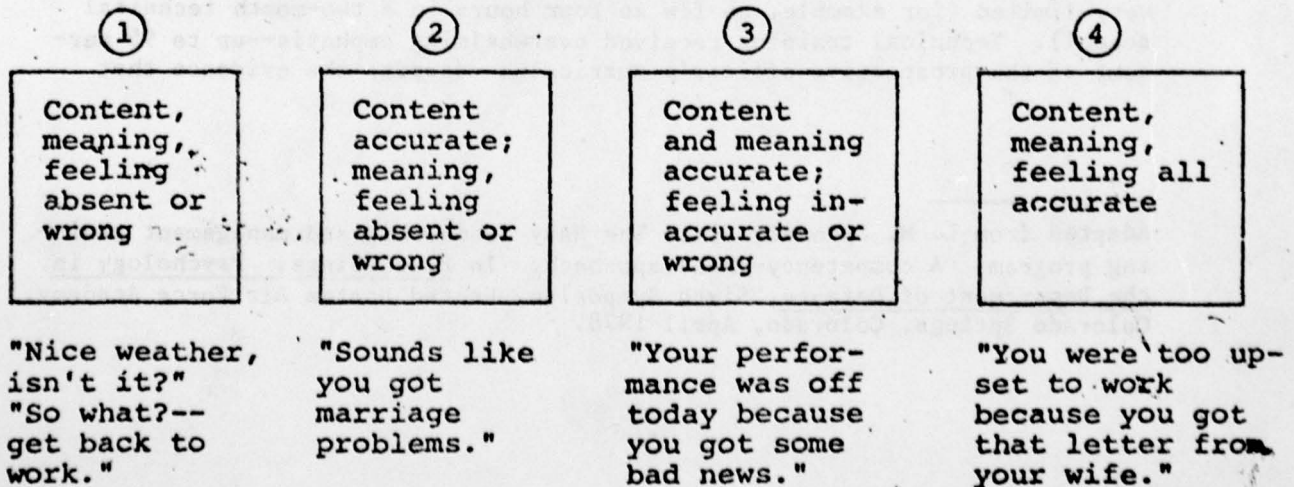
- Content: what the person is talking about--his wife, her job, an alcohol problem, etc.
- Meaning: why the person is talking about it--"You are talking about, because..." (e.g., wife, because she's leaving him; job, because she's not doing it as well as she could, etc.)
- Feeling: how the person feels--the feeling word the person uses.

--type of feeling: sad, angry, frustrated

--intensity of feeling: for example, for anger, where on a scale from "mildly irked" to "blind rage"

For example, to a person who has received a "Dear John" letter, the counselor says:

UNDERSTANDING



THE NAVY LEADERSHIP AND MANAGEMENT TRAINING
PROGRAM: A COMPETENCY-BASED APPROACH

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Introduction

This paper will briefly summarize the research underlying the Navy's new Leadership and Management Training Programs.

In 1975, under the leadership of CDR Dana French, the Navy's Bureau of Personnel (BUPERS) initiated a study of the Navy's existing leadership and management training efforts. This study (CNET, 1975) produced a number of interesting findings.

First, it was found that a majority of naval commissioned and non-commissioned officers did not receive any leadership and management training at key ascension points in their careers. Figure 1 shows the key ascension points for commissioned officers--source school conversion training when people enter the service, then division officer, department head, staff, XO, CO, and Flag positions, and shows the number of empty cells, points at which officers do not now receive training. Figure 2 shows the comparable ascension points for enlisted personnel--recruit (boot camp training), petty officer, leading petty officer, leading chief petty officer, and master chief petty officer (E9s in the position of senior enlisted person in command)--and shows the empty cells, points at which noncommissioned officers do not receive training.

Second, even where leadership training was shown to exist, it was often very limited (for example, as few as four hours in a two-month technical school). Technical training received overwhelming emphasis--up to 95 percent of the prospective officer's curriculum--despite the evidence that

Adapted from L. M. Spencer, Jr., The Navy leadership and management training program: A competency-based approach. In Proceedings: Psychology in the Department of Defense, Sixth Symposium, United States Air Force Academy, Colorado Springs, Colorado, April 1978.

OFFICER COMMUNITY/KEY BILLETS SUMMARY

DESIGNATOR	SOURCE	DIV	OFFICER	DEPT	JR	STAFF	JR	WASH	PXO	PCO	STAFF	SR	WASH	FLAG	COMMUNITY	SIZE	LEGEND
Surface																12,450	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Aviation																19,580	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Submarine																3,870	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Special																190	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Non-Warfare																2,780	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
MC																3,430	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
DC																1,710	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
NC																2,600	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
MSC																1,750	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
SC																3,980	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
JAGC																710	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
CEC																1,400	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
CHC																860	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
EDO																1,250	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
AEDO																680	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Crypto																80	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Geophys.																360	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
Intel.																930	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
PAO																160	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
LDO																2,470	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)
WO																3,090	EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)

Figure 1

Figure 2

ENLISTED OCCUPATIONAL FIELDS/KEY BILLETS SUMMARY

OCCUPATIONAL FIELD	RECRUIT	PETTY OFFICER	LEADING PETTY OFFICER	LEADING CHIEF PETTY OFFICER	MASTER CHIEF PETTY OFFICER	LEGEND
General Seamanship						<p> EXISTING LEADERSHIP MANAGEMENT TRAINING (FUNDED)</p> <p> EXISTING NON-LEADERSHIP MANAGEMENT TRAINING (FUNDED)</p> <p> NON-EXISTANT COURSES</p>
Ship Operations						
Marine Engineering						
Ship Maintenance						
Aviation Maint/Weaps.						
Avn. Ground Support						
Air Traffic Control						
Weapons Control						
Ordnance Systems						
Sensor Operations						
Weapons Sys. Support						
Data Systems						
Construction						
Health Care						
Administration						
Logistics						
Media						
Musician						
Master-at-Arms						
Cryptology						
Communications						
Intelligence						
Meteorology						
Aviation Sensor Ops.						
Apprenticeships						

(1) officers spent 50 percent of their time on personnel (as opposed to technical) management, and (2) competence in managing people is more predictive of their overall effectiveness, especially as they attain higher rank. Technical training alone is not enough. The conclusion was that most Navy leaders did not receive adequate training in leadership and management at the key points in their careers when they had to assume increased management responsibility.

The recent history of Navy Leadership and Management training efforts has included two major initiatives:

1. Human Resource Management (HRM): education, attitude change and organization development programs concerned with Navy people problems--racism, sexism, drug and alcohol abuse--and command climate. These programs were a response to major personnel problems the Navy encountered in the late 1960s as a result of the Vietnam war, all-volunteer military service, changing youth culture, and racial tensions in American society. A major Congressional study, the Hicks report (Hicks, 1973), found that the single most important factor in these problems was lack of leadership and management skills of Navy middle management personnel. HRM programs effectively focused Navy attention on important problems, but it has been found that "preaching" at people has relatively little power to change their behavior. Further, it has always been the premise of Navy HRM programs that if Navy leaders were doing their jobs, the need for collateral "people problem programs" would be substantially reduced. This led to the Navy's development of leadership and management training.

2. Leadership and Management Training (LMT): one- and two-week courses on management theory and behavioral science, given at San Diego and Little Creek. LMT courses were well received (one indication of the extent to which Navy supervisors felt they needed more management training), but an examination of the content of these courses found:

- There was no standard curriculum or consensus about what knowledge or skills were needed to perform effectively as a Navy leader. Courses consisted of a potpourri of Navy tradition, rules, and regulations; civilian academic management theories (e.g., Maslow, Herzberg, & McGregor); and a few offerings from the behavioral sciences--organizational behavior, communications, transactional analysis, and the like.
- Courses lacked any foundation in empirical research (i.e., there were no data to show that anything taught in these courses had, in fact, any relation to effective leadership and management in Navy billets).
- Courses were 90 percent cognitive and 10 percent experiential (i.e., consisted primarily of talking at people about leadership and management in formal classroom lecture formats rather than teaching them practical leadership and management skills in realistic, "hands on" contexts).

Most Navy participants reported that they liked these courses, but that they experienced difficulty relating what they had learned to their actual jobs.

The Research Effort to Identify Navy Leadership Competencies

To address the limitations identified in existing courses, BUPERS decided to develop a new leadership and management program based on empirically derived competencies: those knowledge, skill, and motivation variables which could actually be shown to predict effective performance in Navy leadership billets.

The research method used to identify these competencies was a job competency assessment procedure developed by Professor David C. McClelland at Harvard University (McClelland, 1975). This procedure consists of three steps.

- (1) Identification of a criterion sample of exemplary (top five percent), superior, and average billet incumbents at each ascension point from the three Navy communities (air, surface, and submarine commands) in the Atlantic and Pacific Fleets.
- (2) Behavioral event interviews with sample subjects. These interviews elicited very detailed accounts of the critical management incidents actually faced by Navy leaders. The interviews accomplished this through use of a narrative format: what led up to the situation, who was involved, what the motives of the key actors were, what the respondent actually did, and what outcomes resulted from actions taken.
- (3) Analysis of interview incidents to identify motives, skills, and behaviors which (1) differentiated superior from average officers, and (2) all officers needed to have in order to perform adequately in their jobs.

Interview data were empirically coded for each of these variables, providing quantitative scores which could be used in statistical tests of their power to predict subjects' criterion ratings.

Approximately 200 respondents were interviewed, yielding about 900 scorable behavioral events. Thematic analysis of a subsample of these protocols identified 27 reliably identifiable competency characteristics. All events described by rated officers in the Atlantic and Pacific Fleet samples were then scored "blind" by trained scorers who had achieved a mean interrater reliability of $r=.86$. Competency variable scores for all subjects were then factor analyzed, yielding five competency factors (Klemp, Munger, & Spencer, 1977):

- (1) Task Achievement
- (2) Management Control
- (3) Skillful Use of Influence
- (4) Coercion
- (5) Advising and Counseling

The competency factors were tested in a double cross validation design in which the discriminant function analysis coefficients predicting superior performance in one Navy fleet were used to predict ratings in the opposite fleet. Stepwise discriminant analysis yielded standardized coefficients for all competency factors except Coercion, which did not distinguish superior from average officers.

The PACFLT discriminant function correctly classified 41 of the 51 rated officers (80.4 percent) in the PACFLT sample and 55 of the 78 officers in the LANTFLT sample (70.6 percent). The LANTFLT discriminant function correctly classified 58 of the 78 rated officers (74.4 percent) in the LANTFLT sample and 36 of the 51 rated officers (70.6 percent) in the PACFLT sample. The average of the ϕ coefficients obtained in each cross-predicted sample was .46, significant at the $p > .001$ level and a reasonable estimate of the predictive power of the four-factor competency model when applied to an independent sample. No significant rating or competency differences were found for superior officers in the Atlantic and Pacific Fleets or among the air, surface, or submarine communities. These data suggest that the rating standards were relatively unbiased and that competencies identified are applicable to the Navy as a whole. In a second cross-validation study, a test battery designed to measure the competencies was administered to 983 Naval officers, 472 from the Atlantic Fleet and 511 from the Pacific Fleet. Test variables predicted subject performance ratings at $R = .58$ (Winter, 1978, p. 63). Consolidation of the validation research on Navy leadership and management competencies (Winter, 1979) identified 16 competencies, grouped in five competency factors for instructional purposes (see Figure 3):

1. Concern for Efficiency and Effectiveness
2. Management Control
3. Skillful Use of Influence
4. Advising and Counseling
5. Problem Solving

Three threshold skills (achievement motivation, power motivation, and technical competence) which did not differentiate between superior and average performance but were expressed by a majority of all Navy officers, were also identified.

Concern for Efficiency and Effectiveness

Superior officers reported more incidents in which they expressed concern for achievement, set specific goals and performance standards, and took initiative to solve technical and managerial problems.

The following incident illustrates the competencies involved in the Concern for Efficiency and Effectiveness factor.

(Aircraft squadron CO): "When I took over the squadron, the first thing I did was get all the flight records going back six months. We weren't doing nearly as well as the other squadrons, and I told the wardroom that I said I wanted us to be the best, and that we would increase our flight hours every week until we were. Mostly it was a matter of showing people how to plan, to count the days, figure out what to accomplish each day, personnel, materials, who goes where, when, what needs to be done, when, and who does it, down to the lowest airman. I got all the LCDRs together, showed them how to look at all elements that were going to occur in the future, how to develop a plan of attack...Six months later, we've got the most hours flown in the group."

In this case, the CO expressed a concern with improving performance, and set goals and standards to achieve his objective.

Management Control

Superior officers were more likely to report incidents in which they planned and organized tasks, matched people and resources to jobs, delegated responsibility, monitored or followed up to be sure jobs got done, and rewarded or disciplined subordinates on the basis of their performance.

The following incident illustrates this factor.

(CO, submarine): "I started planning for the inspection six months ahead of time. If you don't do that, you're always fighting fires and you never get on top of it. Crisis management I don't like. I laid it all out ahead of time (shows interviewer elaborate PERT chart). I make sure every guy knows his job. (Interviewer: "How?")...I tell 'em...each gets his chunk of the plan...(shows interviewer thick folder with "to do" lists for each department) and knows where he fits with the others. I let them run with it, but haul them in every week to see where they're at, what's going okay and what ain't. I don't let things slip. I've got a tickler system (shows interviewer three-inch stack of NCR forms referenced by due dates). If someone's on track, I give them a big 'atta boy,' encouragement to keep going. If not, I tell them I'm going to call back--once. The second time I have to call, they have a little chat with the XO or me."

EXHIBIT 3

Navy Leadership Competency Factors and Component Competencies

I. CONCERN FOR EFFICIENCY AND EFFECTIVENESS (Task Achievement)

- Achievement motivation: concern with improving task performance
- 1. Sets goals and performance standards
- 2. Takes initiative: personal responsibility and immediate action to solve problem

II. MANAGEMENT CONTROL

1. Plans and organizes: prioritizes and schedules tasks
2. Optimizes use of resources: matches people and material to tasks
3. Delegates: appropriately assigns tasks to subordinates
4. Monitors results: follows up to see if tasks are performed to standards
5. Rewards and recognizes good task performance
6. Disciplines (punishes)

III. SKILLFUL USE OF INFLUENCE

- Power motivation: aware of and concerned with influence
- 1. Emotional self-control
- 2. Influences: up, across, and down chain of command to accomplish tasks and maintain organizations
- 3. Develops subordinates (coaches): teaches others how to improve performance
- 4. Team builds: promotes a sense of work group identity, cohesion, cooperation, and commitment

IV. ADVISING AND COUNSELING

1. Positive expectations: expresses positive concern for and belief in others
2. Realistic expectations: accurately perceives others' strengths and weaknesses

3. Understands: seeks out, shows interest, and listens to persons with problems; accurately hears others' problems
4. Takes initiative to help: suggests alternatives or appropriate referrals

V. CONCEPTUAL THINKING

1. Conceptualizes: identifies and solves managerial and organizational problems
 - Technical competence: knows technical aspects of job, identifies and solves technical problems
 - Threshold skills which do not differentiate superior from average performers but are needed and used by all Navy officers

Superior officers reported planning ahead and feeling in control of events. Average officers expressed feelings of always being behind, overwhelmed by external system demands, and powerless to avoid continued crisis management.

Skillful Use of Influence

Superior officers were more concerned with influence (i.e., higher in power motivation), and used more influence methods--persuasion, explanation, inspiration, rewards--to accomplish their objectives and motivate subordinates to work as a team.

The following incident illustrates the competencies involved in the Skillful Use of Influence factor.

(RM7): "I went in there, junior to everyone else, and I knew I had a better way. These people'd been doing it the same way for 15 years--it was their baby and they had real ownership in it. I wanted subtly to convince them my way was best. I did this by proposing new ways that were almost complete, but which they could make a real contribution to--so they owned it, too. I kept my cool and let them get lots of wins off me on little stuff so they always felt they were on top--though I got the big ones I wanted through."

In this example, the officer expressed concern with influence, controlled his emotions, and effectively influenced people and events in the direction he wanted, while promoting a sense of cooperation among his team members.

Use of coercive power did not differentiate superior from average leaders. Superior officers were less likely to use coercion but did report more incidents in which they disciplined subordinates. Perhaps because they were more concerned with standards and management control, these officers gave more feedback, both positive (rewards) and negative (disciplinary).

Coercion appeared to be effective when required to maintain standards or order essential for mission performance--for example, being very tough on drug abuse on nuclear submarines, as illustrated in the following incident.

(XO, submarine): "I know there are people doing drugs on board. I tell every new man who comes on board, 'Drugs don't go down on this ship--and if you mess with that stuff, I'll catch you and bust you.' You just can't have that kind of nonsense on a nuclear sub. I caught two last week and it was two and a half days from the time they were caught to the time they were gone. And if you know the UCMJ red tape involved, that's fast."

Coercion tended to be ineffective when used solely to maintain a superior's power position or to demand conformity on minor issues not related to mission accomplishment (characterized by respondents as "nit-picking" or "harassing people about Mickey Mouse stuff"). In dealing with subordinates' initial problems, errors, or infractions, coercion appeared to be less effective than restraint followed by counseling or coaching. Superior officers tended to coerce subordinates only as a last resort, when the other leadership methods proved ineffective, whereas average officers were more likely to use coercion as a first or only resort. This distinction was illustrated by two officers interviewed the same day in San Diego. Each had received seamen who had been in considerable trouble in their former units. The first officer reported:

"I told that kid that I didn't care about his past, that he started at day one with me, but that if he messed up, I'd break him personally. I got on him about his appearance. He was a habitual pig-pen. One day I saw him holding a slack line on a capstan. I told him to take up the slack. He just stood there. I said, 'All right, you've had it.' I wrote him up on two counts of insubordination and failing to obey an order. He filed a complaint against me charging me with harassment. Then he went UA. Two days later he was found dead in a bathtub of an overdose of drugs. Maybe I helped cause it, but what can you do with someone like that?"

The second officer said:

"I get transferred a lot of so-called 'deadheads,' but they aren't really, 'cause every man can do some job well, and I can prove it. I told this one kid I didn't care about his past, he started clean here and I'd help him every way I could. I gave him simple jobs I knew he could succeed at to give him some wins. I tried to think of things to do to build his self-confidence. Everyone else had a tool kit, so I gave him one. Damn if he didn't break down and cry. He said no one had ever trusted him enough to give him something like that before. It took a while, but he's become an okay mechanic and he's not been in any trouble since he's been here."

The first officer, rated average, expressed negative expectations and used coercion resulting in an undesirable outcome. The second officer, rated exemplary, expressed positive expectations, and used a coaching approach which effectively empowered his subordinate and resulted in the latter becoming an adequate performer.

Advising and Counseling

A somewhat surprising finding was that Navy leaders spent considerable time acting as counselors, advising subordinates on performance, disciplinary, career planning, and personal problems such as drug, alcohol, financial, and family difficulties.

Superior officers reported incidents in which they identified subordinate problems, initiated contact to talk about these problems, or were perceived as approachable. They described their ability to hear what people were trying to say (accurate empathy or insight into others' needs, motives, and hidden agendas), and acted to help subordinates with personal problems by "fighting for their people" or making appropriate referrals to other sources of help. These officers also made significantly more statements of belief in subordinates' basic worth and ability to perform, and more use of positive expectations to inspire improved subordinate performance.

The following critical incident illustrates this factor.

(BM2): "I had this one seaman, a real good kid. Suddenly his performance started slipping. I'd see him wander off by himself during breaks and just stare out to sea. I went up to him and said 'I don't want to mess with your private life, but have you got anything you'd like to talk about, sort of get off your chest?' He said he was going to kill himself. He'd gotten a letter from his wife saying she was leaving him, living with some other guy. I talked with him a lot after that, over the next few months--mostly just listened. He got divorced, but he didn't do himself no harm. He's okay now. He's one of my best men."

In this case, the petty officer noticed his subordinate's distress, made contact in an understanding way, provided counseling assistance, and expressed consistent positive regard for the individual throughout the process.

Conceptual Thinking

Superior officers reported more incidents in which they identified, analyzed and solved complex managerial problems. Important to this "critical thinking" competency was the ability to break a problem down into its constituent components, and cite data to support problem analysis.

The following incident illustrates this competency.

(CO, destroyer): "I became aware of four things I thought were affecting morale: bad-mouthing by a core group of bad apples, lack of unit identity--due in part to too much overtime work, so people didn't see their families on weekends--and infrequent rewards and recognition. So I isolated the bad apples, went to a 4-day, 10-hour week so the work got done, but guys got 3 days every week off, and organized an on-ship family Fourth of July party where I gave all the wives and kids planks (emblems, toys symbolic of ship) which culminated in an 'awards ceremony' where I praised the people doing a good job in front of their folks...etc."

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ARMY TRAINING DEVELOPMENTS INST FORT MONROE VA

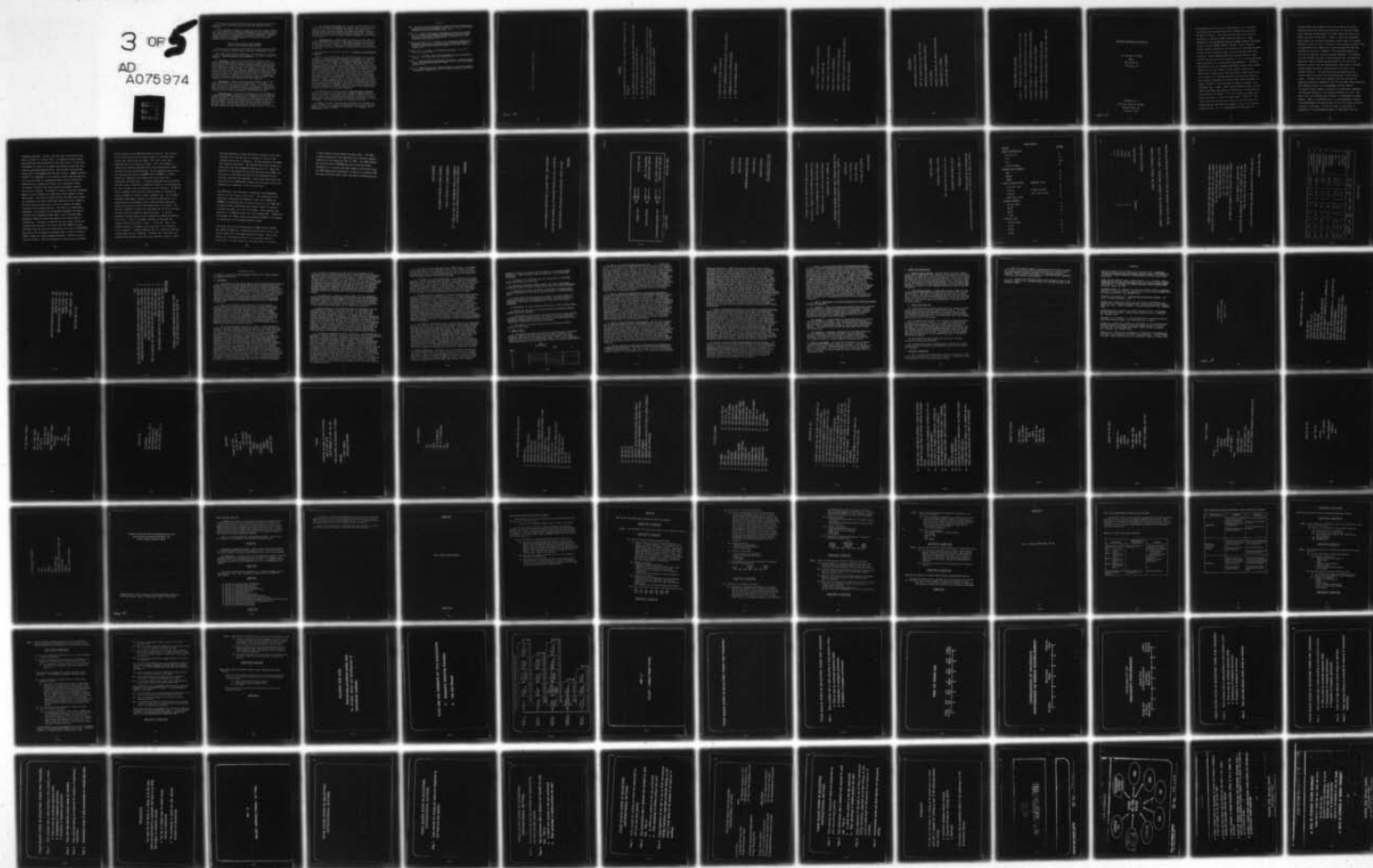
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In this case the officer identifies the overall problem, morale, cites specific factors contributing to the problem, and develops corrective solutions.

A final significant finding of the CNET study was that superior officers had a wider repertoire of leadership competencies than did average officers. They reported use of more and different leadership competencies, suggesting greater flexibility in responding to situational contingencies. Superior leaders differed not in coercing less, but in coaching, influencing, managing, and counseling more.

Design of Navy Leadership and Management Education and Training (LMET) Programs

I will conclude by briefly describing how these research data are being used in the design of competency-based leadership and management courses.

Each 10-day course includes three parts. The first part of the course consists of intensive modules on each competency. Each module includes five elements:

1. Recognition. Trainees are presented with a difficult case or simulation problem designed to produce a "shock of recognition," in which participants realize that they actually encounter problems calling for use of the competency in question in their real jobs and that they often have trouble dealing with these problems. (For example, in a module on influence, trainees may be asked to motivate a subordinate who panics and refuses to perform in a crisis.) These cases and simulations are drawn from actual critical incidents collected during the research phase of the project. The recognition element is designed to introduce the topic in an experiential way and create specific motivation for learning: maximum relevance with a recognition of actual versus desired skill in the competency.

2. Explanation. Trainees receive practical conceptual input on the competency via readings, lectures or demonstrations. For example, in a module on influence, participants would get a lecture on the importance of power motivation in leadership tasks, how to see managerial interactions in terms of influence skills, then a videotape demonstration of specific ways of dealing with the situation presented in the "recognition" case.

3. Self-assessment. Trainees receive feedback on their performance in assessment center simulations on each of the competency factors predicting superior performance. This feedback, which in effect tells them "this is how the superstars in your billet perform on these dimensions, and this is how you perform," provides each trainee with very specific directions or goals for change. Descriptions of what superior performers actually do to get their results--and the implication that trainees can learn skills--provides a potent role model and motivation for participation in the course.

4. Skill Acquisition and Practice. Trainees practice using the competency skills they have been taught. For example, they discuss additional influence cases, describing how they would handle each, then actually practice giving charismatic speeches, persuading subordinates to reenlist, dealing authoritatively with crisis situations, and the like. Videotape critiques are used to give participants specific feedback on their development of skills.

5. Job Application. Trainees identify situations in which they will use the competency in their jobs and set goals, anticipate obstacles, and develop action plans for doing so. This element reinforces the relevance of training, translates it back into real job performance, and increases the likelihood that skills developed in training will in fact be used back on the job.

The second part of the course consists of a large scale job application simulation.

Because it is recognized that jobs rarely require the use of a single competency, a three-day full-scale simulation was designed to present participants with complex problems requiring the simultaneous use of many of the competencies. For example, in a course for commanding officers, participants are required to take over a command facing a major inspection where the previous CO has been relieved for cause. They first must deliver a "command policy statement" at their first Captain's Call when they assume command (an influence task). They then must plan for the inspection, a task which requires negotiation with their superior officer and various supply units for material and resources, under time pressure and in competition with other COs who need the same limited resources (a task with technical achievement, influence, and management control elements). As they manage their subordinates' preparation for the inspection, they encounter various obstacles: a major equipment casualty, a racial incident which threatens to embarrass the CMD and bring work to a halt, and the breakdown under stress of a key subordinate who goes AWOL on an alcoholic binge (problems requiring the use of achievement, management, influence, and counseling competencies in various combinations). Each problem is realistic, drawn verbatim from critical incidents of actual billet incumbents.

The final part of the course consists of goal setting and evaluation. Trainees are assessed on the competencies, helped to integrate material learned, and asked to set goals for use of developed competencies when they return to their jobs. Goal-setting exercises have a career and life planning emphasis, encouraging ongoing self-assessment and planning for personal development. Post-tests provide data for evaluating the course.

In summary, the Navy's competency-based leadership and management program is designed to teach practical leadership skills which have been shown empirically to predict competent job performance: what superior leaders actually do in their real jobs.

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OFFICER COMMON TASKS

Incl 16

FINDINGS

- TASKS SUBMITTED ARE A MIX OF SKILLS, KNOWLEDGES, RESPONSIBILITIES, AND BEHAVIORS
- TASKS SUBMITTED CANNOT ALWAYS BE CONSIDERED MEANINGFUL UNITS OF WORK (BUT THEY MAY BE AREAS WHICH REQUIRE TRAINING)
- TASKS HAVE VARIED LEVELS OF SPECIFICITY
- TASKS MAY HAVE "HIDDEN" MEANINGS--ONLY TO BE REVEALED VIA ANALYSIS. EFFORT TO DEVELOP A COMMON STATEMENT ACCEPTABLE TO ALL SOMETIMES RESULTS IN A TASK MEANINGFUL ONLY TO PROPONENT

STRATEGY

- ALLOW USERS TO CRITIQUE THE ANALYSIS
- REVIEW AT HEADQUARTERS/PROVIDE GUIDELINES TO ASSIST ANALYSTS
- STRENGTHEN ROLE OF THE INTEGRATING CENTERS
- SCHOOL VISITS/TRAINING SESSIONS

EXAMPLES

COUNSEL A CIVILIAN EMPLOYEE ON PAY MATTERS

INSTALL M18A1 CLAYMORE MINE

LOCATE A TARGET BY SHIFT FROM A KNOWN POINT

ENGAGE TARGETS WITH HANDGRENADES

CONDUCT INVENTORIES OF SUPPLIES/EQUIPMENT

DEVELOP A PLAN TO ACHIEVE UNIT GOALS AND OBJECTIVES

CLARIFY ROLES OF SUBORDINATES

NON-EXAMPLES

EXPLAIN ARMY AVIATION STRUCTURE

KNOW THE CAPABILITIES OF EACH ARMY AIRCRAFT

EMPLOY/RECORD STANDARD PATTERN MINEFIELD

SET THE EXAMPLE

DESCRIBE TIME WASTERS AND TRAINING DISTRACTIONS

PERFORM EFFECTIVE LISTENING

USE THE FUNCTIONS OF MANAGEMENT

OFFICER COMMON TASK MILESTONES

1 JUNE 79 - PROPONENTS SUBMIT LISTS OF COMMON TASKS OFF THE SHELF

1 JUNE-15 AUGUST 79 - PROPONENTS DEVELOP ANALYSES OF COMMON TASKS

15 AUGUST-1 OCTOBER 79 - TASK ANALYSES COORDINATED AMONG PROPONENTS

1 OCTOBER-1 NOVEMBER 79 - PROPONENTS REVIEW COMMENTS

1 NOVEMBER 79 - FINAL ANALYSES DUE TO INTEGRATING CENTERS

1 DECEMBER 79 - LOGC PROVIDES TRADOC HQ FINAL COMMON TASK SUBMISSION

TRAINING DEVELOPER DECISION AID

DR. MICHAEL H. STRUB

CHIEF

ARI FIELD UNIT

FT BLISS, TX

PRESENTED AT:

CHIEFS OF ANALYSIS SEMINAR

NEWPORT NEWS, VA

15 AUGUST 1979

Incl 17

LTC WALTON INVITED ME TO THIS CONFERENCE TO TELL YOU ABOUT THE TRAINING DEVELOPER DECISION AID (TDDA) BEING DEVELOPED BY ARI AT FT BLISS. THE PROJECT BEGAN THREE YEARS AGO IN THE MIDST OF CHANGES IN ARMY TRAINING, ESPECIALLY THOSE REQUIRED BY THE PERFORMANCE OBJECTIVE BASED GUIDANCE CONTAINED IN THE 5 VOLUME TRADOC PAMPHLET 350-30. SCHOOL TRAINERS BECAME TRAINING DEVELOPERS WITH EMPHASIS ON UPGRADING TRAINING IN THE FIELD BY PRODUCING MORE EFFECTIVE TRAINING MATERIALS AND AIDS. THERE EMERGED MAJOR NEW TRAINING MATERIALS SUCH AS TEC AND OTHER SELF-PACED MATERIALS. ALL OF THESE ADDITIONS WERE COUNTERED WITH A MAJOR DELETION, RESOURCES. (SLIDE 1) RECOGNIZING THAT THE TRAINING DEVELOPER'S ASSETS WERE LARGELY SHORT-TERM MILITARY SUBJECT MATTER EXPERTS RATHER THAN EDUCATIONAL TECHNOLOGISTS, ARI DEVELOPED A MODEL OR DECISION AID TO ASSIST THE TRAINING DEVELOPER BY PROVIDING EXPLICIT, DATA BASED, PROCEDURES FOR DECIDING HOW, WHAT, AND WHERE TO TRAIN. (SLIDE 2) OUR GOAL WAS TO DEVELOP, VALIDATE, AND IMPLEMENT SUCH A MODEL. BOTH THE AIR DEFENSE SCHOOL AND THE MISSILE AND MUNITIONS SCHOOL AT HUNTSVILLE ARE ASSISTING US IN VALIDATING THE MODEL. LET'S LOOK INSIDE THE MODEL FOR A MINUTE AND BREAK IT INTO ITS MAJOR PARTS. (SLIDE 3) THE FIRST PARTITION OPERATES ON A TASK BY TASK BASIS AND UPON COMPLETION DELIVERS WHAT ARE COMMONLY CALLED TASK TRAINING PRESCRIPTIONS, THAT IS, RECOMMENDATIONS CONCERNING THE

TRAINING MEDIA AND METHODS TO USE FOR A GIVEN SET OF TASKS. THERE ARE OPERATIONS WHICH DEAL WITH SETS OF TASKS AND THESE YIELD TRAINING OPTIONS WHICH LIST WHICH TASKS TO TRAIN IN THE SCHOOL AND WHICH IN THE UNIT. FINALLY, THERE ARE PROCEDURES WHICH PERMIT THE TRAINING DEVELOPER TO RANK POTENTIAL TRAINING METHODS IN TERMS OF COST. TO DERIVE A TASK TRAINING PRESCRIPTION, THE DEVELOPER FIRST IDENTIFIES A TRAINING ALGORITHM BASED ON THE VERB IN THE TASK. (SLIDE 4) THE ALGORITHM IDENTIFIES THE TYPE OF COGNITIVE OR MOTOR PROCESS REQUIRED. FOR EXAMPLE, THE VERB "REMOVE" IMPLIES A MOTOR CHAINING TYPE OF OPERATION. ALGORITHM IDENTIFICATION WAS DESIGNATED AS THE FIRST STEP BECAUSE IT OFTEN FLAGS AN INAPPROPRIATE VERB SUCH AS "PERFORM" OR SOME OTHER VERB WHICH INDICATES THAT THE TASK IS NOT STATED CORRECTLY. THE TRAINING ALGORITHM IDENTIFIED WILL ALSO BE USED TO VALIDATE THE TRAINING METHOD TO BE SELECTED LATER. THE NEXT STEP IS TO ANALYZE THE TASK STIMULUS BY ANSWERING QUESTIONS CONCERNING ITS TYPE AND OTHER CHARACTERISTICS. THIS PROCESS RESULTS IN A RECOMMENDED STIMULUS MEDIUM. THE ANALYST THEN ANSWERS A SIMILAR SET OF QUESTIONS CONCERNING THE RESPONSE REQUIRED OF THE TRAINEE LEARNING THE TASK. THE MODEL USES THIS INFORMATION TO PRODUCE A RECOMMENDED RESPONSE MEDIUM. WHEN THE CHARACTERISTICS OF THE RECOMMENDED STIMULUS AND RESPONSE MEDIA ARE MATCHED WITH THE SET OF METHODS AVAILABLE, A METHOD IS OBTAINED. A VALIDITY CHECK IS THEN MADE TO DETERMINE IF THE RECOMMENDED METHOD IS COMPATIBLE WITH THE

TRAINING ALGORITHM. IF NOT, THE TASK VERB IS EXAMINED TO BE SURE IT REFERS TO A SINGLE TASK. A TRAINING SETTING RESULTS FROM QUESTIONS SUCH AS WHETHER OR NOT THE TASK IS A TEAM TASK, THE NUMBER OF PEOPLE IN THE TEAM, AND WHETHER OR NOT THE TASK INVOLVES EQUIPMENT MANIPULATION. THE TRAINING PRESCRIPTION, THEN GIVES US RECOMMENDATIONS ON HOW TO TRAIN. WHERE TO TRAIN (SLIDE 5) IS ADDRESSED IN THE TRAINING OPTION ANALYSIS AND FOR THIS TASK THE MODEL IS ORGANIZED AROUND CERTAIN DESCRIPTIVE CHARACTERISTICS SHOWN HERE AS WELL AS A PROCEDURE TO HELP THE ANALYST IDENTIFY THE TASKS HAVING THE HIGHEST PRIORITY FOR INITIAL TRAINING. TO DEVELOP A PRIORITY FUNCTION CONCERNING WHAT TO TRAIN, (SLIDE 6) WE IDENTIFIED THESE FACTORS AS MOST SIGNIFICANT. WE CHOSE PAY GRADE RATHER THAN SQT LEVEL BECAUSE WE DISCOVERED THAT SOME TASKS WERE PERFORMED BY E2, OTHERS BY E3 OR E4, AND WE DIDN'T WANT TO LOSE THE PREDICTIVE POWER PROVIDED BY THIS DISCRIMINATION. FOR IMPACT ON OPERATIONAL READINESS, WE REFERENCE THE APPROPRIATE DOCUMENT FOR EACH OF THE ARMY'S AIR DEFENSE SYSTEMS WHICH LISTS THE OPERATIONAL READINESS CONDITION GIVEN THAT EACH OF THE SYSTEM ITEMS IS INOPERATIVE. THE DATA TO COMPLETE THE LAST THREE FACTORS ARE OBTAINED FROM VALIDATED TASK LISTS AND FROM CODAP LISTINGS AVAILABLE FROM THE MILITARY OCCUPATIONAL DATA BANK AT MILPERCEN. FOR EACH OF THE FACTORS WE DEVELOPED SCALE VALUES AS SHOWN IN SLIDE 7 WHERE THE HIGHER NUMBERS REPRESENT A HIGHER PRIORITY INITIAL TRAINING. WE THEN DEVELOPED A FUNCTION WHICH COMBINED

THESE FACTORS IN THE EQUATION SHOWN IN SLIDE 8. APPLICATION OF THE EQUATION RESULTS IN VALUES FROM 2.4 TO 34 AND THESE VALUES WERE PRIORITIZED AS SHOWN. THE SCALE VALUES AND EQUATIONS ARE NOT CHISELED IN STONE. THEY ARE INTENDED TO PROVIDE THE TRAINING DEVELOPER WITH THE DISCRIMINATING POWER HE NEEDS FOR HIS DECISION MAKING. WE ARE WORKING CLOSELY WITH THE TRAINING DEVELOPERS AT USAADS AND AT USAMMCS TO CONDUCT SENSITIVITY ANALYSES TO DISCOVER THE SCALE VALUES AND WEIGHTINGS THAT WORK BEST. A FURTHER CONSIDERATION IN DECIDING HOW MANY TASKS TO ASSIGN TO TRAINING IN UNITS IS A DETERMINATION OF JUST HOW MUCH TIME IS AVAILABLE FOR SUCH TRAINING. (SLIDE 9) FIRST, LEARNING TIMES FOR EACH TASK ASSIGNED TO TRAINING IN UNITS IS SUMMED TO OBTAIN A TOTAL LEARNING TIME. THE TRAINING DEVELOPER THEN MAKES A SERIES OF ESTIMATES WHICH RESULT IN A CALCULATION OF THE NUMBER OF UNIT TRAINING HOURS AVAILABLE DURING THE SOLDIER'S FIRST AND SECOND YEARS IN THE ARMY. HE CAN THEN COMPARE THE TOTAL TIME REQUIRED FOR THE TASKS ASSIGNED TO UNITS WITH THE NUMBER OF HOURS AVAILABLE. IF HE HAS ASSIGNED TOO MANY HOURS TO UNIT TRAINING, HE SHOULD RECONSIDER HIS OPTION. FINALLY, THE MODEL PROVIDES A PROCEDURE FOR RANKING METHODS ACCORDING TO COSTS. (SLIDE 10) HERE IS AN EXAMPLE BASED ON 7 METHODS IN THE ROWS AND 7 COST VARIABLES IN THE COLUMNS. AVERAGE RANKINGS FOR THE 7 VARIABLES INDICATE A RANK ORDER FOR THE 7 METHODS. SEPARATE COST INDICATORS ARE OBTAINED FOR RESIDENT TASKS AND TASKS TRAINED IN UNITS. THESE

ARE THEN COMBINED TO OBTAIN AN OVERALL TRAINING OPTION COST INDICATOR WHICH MAY BE USED TO ESTABLISH A RATIO OF ONE TRAINING OPTION COST TO ANOTHER. WE HAVE DEVELOPED THE MODEL FOR COMPUTER PROCESSING. THE COMPUTER PROCESSING VERSION IS COMPATIBLE WITH ANY STANDARD COMPUTING FACILITY. ONCE THE DESCRIPTIVE AND EVALUATIVE DATA ARE PREPARED FOR AN MOS, THE DATA BASE IS AVAILABLE FOR QUICK ACCESS WHENEVER REVISED TRAINING DECISIONS ARE REQUIRED. SUCH A DATA BASE SHOULD BE VERY USEFUL FOR CONTINGENCY PLANNING SUCH AS HOW TO DEAL WITH DECREMENTS OR INCREASES IN THE TRAINING BASE.

THE TDDA MODEL WAS DEVELOPED, FLOWCHARTED, AND PROGRAMMED DURING THE FIRST YEAR OF THE EFFORT. THE SECOND AND THIRD YEAR HAVE CONCENTRATED ON WORKING CLOSELY WITH USAADS AND USAMMCS TO DETERMINE EASE OF USE AND UTILITY OF THE TDDA, AND TO DEVELOP USER INSTRUCTIONS WHICH WOULD PERMIT THE ANALYST TO LEARN THE MODEL IN A SELF STUDY MODE. THESE TRYOUTS HAVE RESULTED IN A TDDA DATA BASE FOR THE FOLLOWING MOS. (SLIDE 11). AT PRESENT, THE TDDA IS BEING VALIDATED ON PATRIOT TO DETERMINE ITS APPLICABILITY TO EMERGING WEAPON SYSTEMS.

THE MAJOR TASKS TO BE ACCOMPLISHED ON TDDA DURING FY 80-82 ARE SHOWN IN SLIDE 12. A DETAILED DESCRIPTION OF THESE TASKS MAY BE FOUND IN THE ATTACHED STATEMENT OF WORK. WHILE EACH SCHOOL WILL DIFFER WITH RESPECT TO ITS PRESENT COMPUTER FACILITIES, THE TDIS PLANS CALL FOR EACH SCHOOL TO OBTAIN A

A MINI-COMPUTER SYSTEM DURING THE EARLY 80's. THE TDDA IS BEING DEVELOPED TO BE COMPATIBLE WITH COMPUTER HARDWARE OBTAINED BY THE SCHOOLS AS PART OF TDIS. THE TDDA PROGRAM HAS BEEN WRITTEN IN FORTRAN FOR USE IN THE BATCH MODE. THEREFORE, IT IS LIKELY THAT MANY SCHOOLS COULD BEGIN USING THE TDDA IMMEDIATELY EXPLOITING ITS ABILITY TO ORGANIZE MOS DATA AND PROVIDE AN AUDIT TRAIT FOR NEWLY ASSIGNED ANALYSTS.

BACKGROUND

INCREASED EMPHASIS ON SYSTEMS APPROACH TO TRAINING AS
EVIDENCED BY SYSTEMS ENGINEERING, ISD, ITDT, AR 1000-1, ETC.

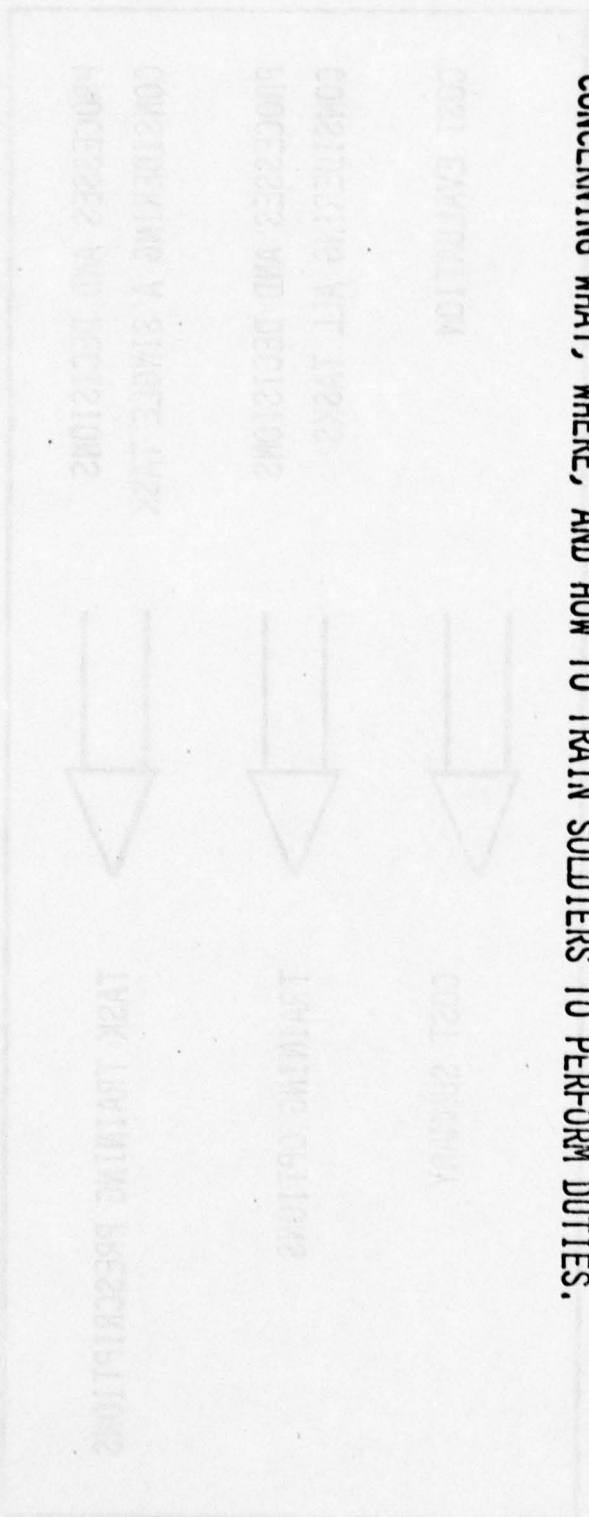
INCREASED EMPHASIS ON TRAINING IN UNITS

INCREASED NUMBER OF TRAINING ALTERNATIVES

DECREASED FUNDS

OBJECTIVE

DEVELOP A MODEL CONSISTENT WITH INSTRUCTIONAL SYSTEM DEVELOPMENT
PROCEDURES TO AID THE TRAINING DEVELOPER IN THE PROCESSES AND DECISIONS
CONCERNING WHAT, WHERE, AND HOW TO TRAIN SOLDIERS TO PERFORM DUTIES.



MODEL PARTITIONS

MODEL OUTPUTS

PROCESSES AND DECISIONS
CONSIDERING A SINGLE TASK



TASK TRAINING PRESCRIPTIONS

PROCESSES AND DECISIONS
CONSIDERING ALL TASKS



TRAINING OPTIONS

COST EVALUATION



COST SUMMARY

TASK TRAINING PRESCRIPTION

TRAINING ALGORITHM

STIMULUS MEDIA

RESPONSE ACCEPTANCE MECHANISM

TRAINING METHOD

TRAINING SETTING

TRAINING OPTION

ALLOCATION OF TASKS TO:

- RESIDENT TRAINING
- TRAINING IN UNITS
- NO TRAINING

TO ASSIST TRAINING MANAGER IN DETERMINING WHICH TASKS TO ASSIGN TO WHICH TRAINING CATEGORY, MODEL PROVIDES INFORMATION CONCERNING:

- PAY GRADE OF THE TASK PERFORMER
- SYSTEM EQUIPMENT ON WHICH THE TASK IS PERFORMED
- SUPPORT EQUIPMENT USED IN PERFORMANCE OF THE TASK
- TASK DEPENDENCIES BASED ON SKILLS INHERENT IN EACH TASK
- PRIORITY OF TASKS FOR INCLUSION IN INITIAL TRAINING

PRIORITY OF TASKS FOR INCLUSION IN INITIAL TRAINING DETERMINED BY SCALING
AND COMBINING THE FOLLOWING FACTORS:

PAY GRADE OF TASK PERFORMER

IMPACT ON OPERATIONAL READINESS

TIME TO APPLICATION AND TRAINING TIME

PERCENT MEMBERS PERFORMING

PERCENT TIME SPENT

SCALE VALUES

FACTOR

RATING

TASKS PERFORMED BY

E-2 OR E-3

2

E-4

1

E-5

0.5

E-6 OR HIGHER

0

OPERATIONS READINESS

RED

5

AMBER

4

GREEN

2

TIME TO APPLICATION

4 WKS OR LESS

-

4

5-8 WKS

2 DAYS OR MORE

3

5-8 WKS

LESS THAN 2 DAYS

2

MORE THAN 8 WKS

-

1

PERCENT MEMBERS

70 AND ABOVE

4

40-69

3

20-39

2

0-19

1

PERCENT TIME

75 AND ABOVE

4

50-74

3

25-49

2

01-24

1

FUNCTION FOR DETERMINING PRIORITY OF TASKS FOR INCLUSION IN INITIAL TRAINING:

RATING = PAY GRADE X (OPERATIONAL READINESS + TIME TO APPLICATION + PERCENT

MEMBERS PERFORMING + PERCENT TIME SPENT)

PRIORITIZATION OF RATINGS

FUNCTION VALUE	PRIORITY
22-34	1
14-20	2
8.5-13	3
5.5-8	4
2.4-5	5

CYCLE TIME UTILIZATION

FACTORS INVOLVED IN CALCULATING TRAINING TIME AVAILABLE IN UNITS

NUMBER OF HOURS REQUIRED TO LEARN THE TASKS

SUM OF TASK LEARNING TIMES (TLT) FOR EQUIPMENT AND NON-EQUIPMENT
TASKS ASSIGNED TO TRAINING IN UNITS

NUMBER OF HOURS AVAILABLE IN A LEARNING CYCLE BASED ON:

NUMBER OF DAYS IN A DUTY YEAR

HOURS SPENT IN BCT, AIT, TVLP

STANDARD NON-PRODUCTIVE FACTORS

UNIT MOVEMENT AND DEPLOYMENT FACTORS

NUMBER OF HOURS THAT EQUIPMENT COMMITMENTS PERMIT TASK TRAINING

NUMBER OF HOURS THAT NON-EQUIPMENT TASKS CAN BE LEARNED

COST VARIABLES

METHOD Cost Class	SQ FT	INST/ STU	SYS EQ	FURN	EXPEN	ING AID DEV	MAT	AVERAGE RANK	Y
1. TRADITIONAL CLASSROOM	1	3	1.5	3	3.5	2	3	2.4	1.25
2. PEER TUTOR	3.5	4.5	3.5	3	3.5	2	1.5	3.1	1.33
3. TUTOR	3.5	7	3.5	3	3.5	2	1.5	3.4	1.40
4. PROGRAMMED INSTRUCTION	3.5	1.5	1.5	5	3.5	5.5	5	3.6	1.43
5. TRADITIONAL PRACTICAL EXERCISE	6.5	6	5.5	1	3.5	4	3.5	4.3	1.53
6. PROGRAMMED , PRACTICAL EXERCISE	6.5	4.5	5.5	6	3.5	5.5	6	5.4	1.72
7. COMPUTER ASSISTED INSTRUCTION	3.5	1.5	7	7	7	7	7	5.7	1.74

MOS IN TDDA DATA BASE

- 16P - CHAPARRAL CREWMAN
- 16R - VULCAN CREWMAN
- 16X - PATRIOT CREWMAN
- 23U - NIKE HI POWER SIMULATOR REPAIRMAN
- 24M - VULCAN MECHANIC
- 35F - NUCLEAR WEAPONS ELECTRONICS SPECIALIST

AIR DEFENSE TRAINING DEVELOPER DECISION AID:
MODEL EXTENSION AND RESEARCH REQUIREMENTS (FY80-82)

MAJOR TASKS

1. REVISE TDDA AND USER INSTRUCTIONS.
2. ANALYZE TDDA OUTPUT DEPENDENCIES FOR EQUIPMENT ORIENTED MOS.
3. IMPLEMENT GENERALIZED MODEL.
4. SPECIFY TASK ANALYTIC PROCESSES AND REQUIREMENTS FOR INCLUSION IN TDDA.
5. DEVELOP AND EVALUATE TDDA TASK ANALYSIS PARTITION.
6. ANALYZE APPLIED MEDIA/METHOD SELECTION OUTCOMES.
7. CONDUCT RESEARCH TO STRENGTHEN AND GENERALIZE MEDIA/METHOD PROCEDURES.
8. DEVELOP A TRAINEE CHARACTERISTIC TRAINING PRESCRIPTION PARTITION FOR THE TDDA.

STATEMENT OF WORK

1. TITLE. Air Defense Training Developer Decision Aid: Model Extension and Research Requirements.

2. BACKGROUND.

a. Implementation of the Instructional System Development (ISD) processes by the Training and Doctrine Command (TRADOC) and the establishment of the Enlisted Personnel Management System and the Officer Personnel Management System have resulted in many research requirements in direct support of these innovations. One ambitious TRADOC program followed the decision that skill qualification tests (SQT) would replace current 100% paper and pencil Military Occupational Specialty (MOS) tests. Such a program will also assist in the quest for valid measures of effectiveness because such measures will be used not only to evaluate training effectiveness but also to assess each soldier's qualifications for holding his present MOS and his eligibility for promotion.

b. Many research projects will contribute to the SQT program. These include major efforts to derive valid task analyses and to effect a symbiotic relationship between data obtained on the basis of the job and task analyses and those data obtained from occupational surveys which specify who is doing what for what periods of time. Extremely relevant to this pursuit is the development of a model which assists the training manager in organizing and weighing this information to decide the most critical tasks to be trained, the best method of training, and best place to train. Such research is most challenging because it demands the determination not only of what the training manager needs to know but also how best to present it to him.

c. The Training Developer Decision Aid (TDDA) is a model designed to assist the training developer in decisions concerning what, where, and how to train. The model, developed during the first year of a three year effort is a composite of three partitions including (a) training prescriptions, (b) training options, and (c) a set of costing procedures for fiscal ranking of training alternatives. During the second year, the model was implemented in manual and computer modes with instructional handbooks for each mode. The model has been tried out in each mode separately using training developers from the US Army Air Defense School (USAADS) at Ft Bliss, TX and the US Army Missile and Munitions Center and School (USAMMCS) at Redstone Arsenal, AL. Evaluation data has included user acceptance, user problems during implementation, time and cost data, and internal consistency checks. Model revisions and development of self-paced training materials for computer implementation of the model were completed based on year 2 results. During the third year, additional revisions of the model and the training materials occurred based on (a) survey of Army computer systems, (b) computer implementation of the model at Ft Bliss and Redstone Arsenal, (c) tests of the training materials, (d) inclusion of selected interactive procedures, (e) sensitivity analyses, and (f) cost effectiveness analyses.

d. A number of decisions were made during the development of the TDDA model which directly affected the model. Among these were the decisions that (a) Training Development Specialists (TDS's) or Subject Matter Experts (SME's) would exercise the model, (b) the model was specific to machine ascendant MOS's, and (c) model users would provide the task lists for each MOS. In addition, there was insufficient empirical evidence regarding the relationship between individual differences and learning algorithms to incorporate an additional, planned partition to the model to deal with treatment by aptitude interactions. Inherent in the model are the effects of many other decisions regarding criticality, task selection for training, relative costing, and many other outputs which were evaluated during subsequent testing.

e. In recent years, a number of similar models have been developed. These include the Navy Training Analysis and Evaluation Group (TAEG) model, Rand MODIA, and the Air Force TRAMOD. The various models can be characterized with respect to (a) research versus training developer applications, (b) user background, (c) equipment oriented tasks, (d) validity and detail of task data, (e) operation mode, and (f) media-method selection.

f. Certain aspects of the current TDDA model are analogous to the Air Force TRAMOD, for example, in that the task lists for both models are equipment oriented and are provided by the user. The two models have entirely different approaches, however to user qualifications, media-method selection, and mode of operation. For TRAMOD, behavioral specialists are the recommended users. The method/media selection is driven by training objective and taxonomic description. For the taxonomic description, the user decides for each task, the appropriate psychomotor and cognitive levels. TRAMOD is operated through a computer in the interactive mode. The TDDA is operated in a mixed mode involving manual, batch, and interactive modes of operation. Analysis of differences in input requirements, processing, and model sensitivity among various models permits an understanding of the idealized model and development of increasingly responsive applied models.

g. The TDDA was designed for specific application. The principal test of the model is how well the model serves the TDS as a decision aid in determining how, where, and what to train. At present, the model, as exercised by SME's at selected points produces training prescriptions and training options as a function of relative cost as output. The output and procedures have been judged as acceptable by TDS's. Acceptance has been based on the ease of learning to exercise the model, reductions in time and effort for developing course prescriptions, increased awareness of the decisions inherent in completed course prescriptions, and completed course prescriptions which are judged as reasonable and consistent with TDS experience. The existence of a valid decision aid for training has resulted in additional requirements in the areas of both application and research. The model is currently in use at USAADS and USAMMCS. The model has undergone continuous revision as a function of its utilization with selected air defense operator and electronic maintenance MOS's. The need exists to continue the analysis of user data with respect to possible revisions of the model and the instruction materials for model utilization.

h. The model is to be tried out in other TRADOC schools. As the model is exercised using task data from MOS's which are less equipment oriented than air defense MOS's, the applicability of the model to these MOS's must be examined and a decision must be made regarding the use of an unspecified number of separate models or one generalized model.

i. The weakest link in the current model is its dependence on existing task data. ARI has developed, under contract, a Task Analytic Process Model (TAPM) to assist in the analysis of electronic maintenance jobs and tasks into task elements and supporting skills and knowledge. Since both the TAPM and the TDDA are equipment oriented, it may be possible to integrate the two models. Nevertheless, a need exists to analyze the task data requirements of the TDDA and to investigate and/or to develop the means to incorporate one of any number of suitable task analysis processes into the TDDA.

j. An important area of analysis for training decision aids exists with respect to the treatment of method/media selection. Although TRAMOD, and TDDA require different levels of user expertise to exercise the media/method selection portion of the model, simulator predominates as a recommended choice for both models. Jorgensen and Hoffer (in press), in presenting a very detailed method/media selection procedure, express concern that various method/media selection schemes emphasize simulator as output rather than identifying specific characteristics to be incorporated into a simulator. A need exists to identify the assumptions underlying existing practical solutions and to determine their effects on model outcomes. In addition, more information is needed concerning (a) task verbs and functional task groupings and their relationship to training algorithms, (b) identification of relationships among stimulus characteristics and media selection and response acceptance methods and method selection, and (c) empirical evidence supporting media and method effectiveness.

k. The TDDA was designed as an aid in deciding what to train, how, where and at what relative cost. Early in the conceptual stage of TDDA, consideration was given to the problem of whom to train how. The decision was made that there was insufficient empirical evidence at that time to support the inclusion of population specific instructional strategies into the model. While the ARI Field Unit-Ft Bliss is sponsoring in-house and contract work on a program related to the Trait-Treatment Interaction research area, the modest success of that program to date (Sullivan, et al, 1978) and the current state-of-the-art (Cronbach and Snow, 1977) suggests that it is premature to include training prescriptions based on individual difference in an applied training model. Nevertheless, the need exists to examine the TDDA with respect to providing training options specific to selected trainee characteristics and to investigate the relationship between Trait-Treatment Interaction research and the generalized problem of media/method selection.

3. TECHNICAL OBJECTIVES. The goal of this research effort is to provide the Army training schools with a computer based decision aid for training developers. Since an earlier effort has resulted in a Training Developer Decision Aid (TDDA) for USAADS and USAMMCS, the overall objectives of this effort are to refine the existing model with respect to its current applications, to implement the model in other Army schools, and to conduct

research to improve the data base for the model and to expand upon model applications. There are eight technical objectives to be accomplished, as follows:

- a. Revisions of the TDDA model and user instructions, as indicated, based on the analysis of user data.
- b. Analysis of TDDA model input, process, and output requirements for model utilization at Army training schools other than USAADS and USAMMCS.
- c. Emplacement of either the TDDA or related models throughout Army training schools and the revisions of the model/models as indicated by user data.
- d. Investigation of task analytical processes to include analysis of relationships among mission/equipment requirements, individual versus crew performance, initiation, and completion cues, verb lists, and training algorithms.
- e. Development of a task analytic partition for existing training models.
- f. Analysis of the effects of existing applied media/method selection procedures on model outcomes.
- g. Investigation of the effects and interactions of task verbs, training algorithms, stimulus characteristics, and response acceptance mechanisms on generalized media/method selection outcomes and the determination of the differential effectiveness among media and methods.
- h. Development of a trainee characteristic training prescription partition for the TDDA.

4. SCOPE OF WORK.

a. To accomplish the technical objectives specified above, the research effort is organized into eight tasks, which are described below. The Contractor shall provide the necessary qualified personnel, facilities, materials, and services to accomplish these tasks. While all the tasks are interrelated somewhat, the following table reflects the schedule implementation.

TABLE 1
TASK SCHEDULE

TASKS	YEARS		
	1	2	3
1			
2			
3			
4			
5			
6			
7			
8			

D. Task 1: TDDA and User Instruction Revisions. It is assumed that the TDDA will be in place at USAADS and USAMMCS at the start of the proposed effort. If the TDDA is not in general use, the COR shall initiate selected model implementations at both schools. The contractor shall monitor existing user data, develop and administer additional user collection forms to include interviews and questionnaires, evaluate user data, and after coordination with the COR, revise the model and/or user instructions and, at selected intervals, incorporate the revisions into the implemented model. Anticipated areas of concern for revision include advantages and disadvantages related to the interactive mode of model implementation, task data preparation time and procedures, processing of high density tasks and tasks high in similarity, and new MOS training prescriptions for weapon systems at various stages of development. All approved revisions will become a part of the model evaluation process. Extensive revision proposals shall be tried out before inclusion into the implemented model.

c. Task 2: TDDA Output Dependencies for Equipment Oriented MOS's. The TDDA was developed as a decision aid in training prescriptions, training options, and relative costing for machine ascendant MOS's. Equipment and equipment readiness are involved throughout the process. The contractor shall analyze TDDA model input, process, and output requirements to determine model suitability for MOS's which differ with regard to equipment orientation. The analysis shall include examination of the existing task verb dictionary and its expansion as indicated. SME's representing different MOS's will try out the model. The contractor shall monitor these try-outs and make the necessary adjustments to the model and the user instructions for subsequent implementation. It is anticipated that, for most of the Career Management Fields (CMF's) only minor adjustments will be necessary. If there are a few CMF's for which the model is not applicable and if those CMF's represent relative small number of trainees or relatively few courses, then later model implementation will not be affected by them.

d. Task 3: Generalized Model Implementation. The COR shall introduce the revised model based on Task 2 to the TRADOC schools and shall arrange for an initial, limited tryout of the model at the participating schools. The limited tryout will involve only one or two MOS's at each school. The contractor shall implement the model as indicated, provide for the collection of user data, and monitor the user data. At the completion of the tryouts, the contractor shall evaluate the user data and revise the model accordingly by the end of the contract year. After model revision, the model user instructions and the model evaluation process shall be implemented again at the same schools. During this time, model evaluations shall be recorded. Model revisions based on these evaluations shall be introduced at periodic intervals.

e. Task 4: Analysis of Task Analytic Processes and Requirements for Inclusion in Training Models. This task is to provide the information for a TDDA partition with the job, task, task element, and skills and knowledge analyses necessary for model implementation. The partition would be computer

based and interactive. Toward this end, the contractor shall conduct a literature review of existing training models and task analytic procedures. The contractor shall analyze the most promising of the existing models and approaches with regard to their appropriateness for inclusion in the TDDA. The above analysis shall be concerned with the quality of existing task data and shall incorporate appropriate task verification procedures. These procedures should include, but not be limited to, periodic interview checks with job incumbents and validation testing of derived, requisite skills and knowledge. Emphasis for a task analytic partition to TDDA will be on air defense machine ascendant MOS's. Task data sources such as Soldier Manuals and Technical Manuals vary in their usefulness according to the equipment orientation of the MOS. Given the current emphasis of this task, it may be possible to use existing Technical Manuals as the principal data source for task analyses. However, based on the literature review and subsequent analyses, it is anticipated that one approach to be considered seriously is to use mission statements together with supporting equipment specifications and tactics to drive the task analyses and team and individual performance objectives. Whichever approach is used, subsequent partitions should be expanded to provide for the possible generation of training and evaluation plans for unit training that are interrelated to resident training, post AIT resident package field training, and (mission/unit driven) Skill Qualification Testing prescriptions.

f. Task 5: Development and Evaluation of a TDDA Task Analysis Partition.

Based on the literature review and analyses from task 4, the contractor shall develop a task analysis partition which is compatible with existing partitions of the model. The contractor, with COR approval, shall complete any required adjustments to the original partitions which are dictated by specific characteristics of the task analyses partition. Those adjustments which would result in the generation of unit training and evaluation plans and appropriate SQT prescriptions would seem highly desirable. The contractor shall initiate a limited evaluation of the revised model which will include the task analysis partition and the revised, remaining partitions. SME's provided by the USAADS, Directorate of Training Development (DTD), will exercise the model for two MOS's. One MOS will be from a fielded weapon system and the other, potential MOS will be for a weapon system currently under development. The contractor shall collect and evaluate user data. The COR and the contractor shall arrange for DTD personnel to evaluate model outcomes according to specified criteria. Based on the results of the evaluation, the contractor shall revise the model with the task analysis partition.

g. Task 6: Analysis of Applied Media/Method Selection Outcomes. The contractor shall analyze the media/method selection procedures employed by existing training decision models. During the analysis of each media/method procedure, objective/evaluative data shall be collected concerning the extensiveness of the media and method choices, the amount of useful detail in the descriptions of the methods and media, and the procedures going from tasks to media/method. In addition, the contractor shall exercise all models extensively with simulated data to determine the number of realistic choices and the likelihood of each outcome.

h. Task 7: Investigation of Generalized Media/Method Procedures. This task is based on the assumption that existing media/method selection procedures result in training prescriptions which are lacking in detail. Training decision aids should provide the developer with a method design capability in which the performance objectives for tasks and task groupings drive method and simulator design in detail. In support of the development of a media/methods design process, analytical and experimental research is needed on the effects of task verbs, task groupings, training algorithms, stimulus characteristics, and response acceptance characteristics on generalized media/method design process outcomes. This phase of the task is judged as very important and is seen as involving an extensive literature review and a series of analytical tests of the interrelationships among components of the media/method design process. Additional research might include literature summaries and laboratory investigations on the differential effectiveness among media and methods as a function of specific performance categories. It is assumed that the above will require utilization of one or more existing taxonomies. The selection of given taxonomies shall be accompanied by analyses of their strengths and limitations.

i. Task 8: Development of a Trainee Characteristic Training Prescription Partition for the TDDA.

(1) Subtask 1. Review of the Aptitude-Treatment-Interaction literature and the results of a related ARI Field Unit-Ft Bliss program on trainee characteristics and training strategies shall be accomplished. Based on the review, a limited number of tasks shall be identified for training and the training materials to support selected population specific instructional strategies shall be developed.

(2) Subtask 2. A sample format of a trainee characteristic training prescription shall be developed. The formatting shall be consistent with the results of the previous tasks. A limited trainee characteristics partition shall be developed and tried out using the tasks identified in Subtask 1. The partition shall include the requirements for personnel profile data base.

(3) Subtask 3. Laboratory investigations of the effectiveness of the training materials developed in Subtask 1 shall be conducted. Additional investigations of the effects of selected instructional strategies as a function of trainee characteristics will be conducted for a sample of tasks as a test of subtask 2 partition outcomes.

5. PERIOD OF PERFORMANCE. The period of performance is for an initial interval of twelve (12) months, after date of award, to include the delivery of the reports and documentation specified in this Statement of Work. The government, subject to availability of funds, may negotiate contract extensions for two (2) additional years of research effort on a year-by-year basis.

6. REPORTS AND DOCUMENTATION.

a. Monthly Progress Reports. Five (5) copies of monthly progress reports shall be submitted by the Contractor to the Contracting Officer's Representative (COR) with a copy to the Contracting Officer by the 10th of the month, following the month being reported upon. Each progress report shall describe the activities from the previous month, those anticipated for the coming month, and problems encountered. The cost statement shall present the information in both graph and tabular form, indicating funds remaining, in addition to funds expended during and through the reported time period.

b. Final Technical Report. A draft final technical report will be delivered by the Contractor to the COR eleven (11) months after date of contract award. This report will summarize the entire year's contract work. Following COR review and appropriate revision, the final technical report will be delivered in one (1) reproducible (camera-ready copy) and eleven (11) copies at the end of the contract year. (See para 6c for detailed guidance.)

c. Report Specifications.

(1) Each Contractor's technical report shall be a formal scientific report, ready to be published as an ARI Technical Report. The final camera-ready document, after COR approval of the draft version, shall be single spaced, black and white, in a conventional typeface suitable for microform, reproducible on 8 x 10 1/2 inch paper with 1-inch binding edge and 3/4 inch to 1-inch margins.

(2) The report shall contain: (1) DD Form 1473, completed except for blocks 2, 3, 10, 15, 16, and 17; (2) a Brief or Summary stating succinctly the Requirement, Procedure, Findings, and Utilization of Findings; (3) a Table of Contents and List of Tables and Figures; (4) text written in accordance with customary American scientific practice; (5) numbered footnotes giving complete bibliographic references on the page the references are first cited. References shall follow standard psychological practices; a list of references may also be included at the end of the report.

(3) ARI publication style follows very closely the standards agreed upon by behavioral scientists.

(4) Illustrations, tables, and mathematical formulas shall follow standard scientific format and be of professional quality and suitable for microform.

7. ADDITIONAL INFORMATION.

a. It is estimated that approximately three (3) professional person years will be required for the first year's effort. Total program effort is estimated at nine (9) professional person years.

b. Due to the extensive amount of coordination with military personnel at Ft Bliss, the Government shall provide work space at Ft Bliss, Texas, that the Government considers sufficient for up to three contractor personnel. The Government will provide, as it deems appropriate, essential office furniture, equipment, and supplies.

c. Reading of the references cited in this statement of work is not mandatory. Copies of the referenced material will be made available to the successful bidder.

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Frederickson, E.W. and Freer, D.R. Basic Electronics Skills and Knowledge. Contract DAHC19-78-C-0002. Applied Science Associates, Inc., Valencia, PA. December 1978.

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TDIS PRESENTATION
SOFT SKILL ANALYSIS SEMINAR
AUGUST 15, 1979

Incl 18

SUBJECT MATTER EXPERTS (SME) TODAY

- . FRONT END ANALYSIS
- . COMPILE MASTER TASK LIST
- . DEVELOP CRITICAL TASK LIST
- . OBTAIN SME BOARD APPROVAL
- . RESEARCH EXISTING TASKS AND PUBLICATIONS
- . DEVELOP TASK SUMMARY BY INCORPORATING ALL INFORMATION INTO WELL WRITTEN TASK
- . COMPLETE ALL RELATED DOCUMENTATION (I.E. JOB TASK DATA CARD, LEARNING OBJECTIVES WORKSHEET)
- . CREATE AND/OR UPDATE TASK HISTORICAL FILE
- . OBTAIN APPROVAL, THROUGH APPROPRIATE CHANNELS
- . SEND COMPLETED SM TO OTHER SCHOOLS

ALL ELECTRONIC TRANSFER

- . GOAL TO WORK TOWARDS
- . FUTURE ITERATIONS
- . ALL SYSTEMS
 - . TALK TO EACH OTHER
 - . TRANSFER DATA
- . TRADOC "TRAINING" MANAGER
 - . NECESSARY
 - . PAST
 - . NOW
 - . FUTURE
 - . YOU FORCE THE ISSUE

WHERE WE ARE

- PROCUREMENT
- HOST COMPUTER BY 1 APR 80
- QUESTIONNAIRE RESULTS
- INPUT FROM ATTENDEES
- DESIGN INITIATES 1 OCT 79

MILESTONES

- . PHASED WITH AIMS
 - . FY 80 THRU FY 84
 - . SPEED UP
- . AIMS SUCCESS
- . TDIS SUCCESS
- . TERMINAL ACQUISITION
 - . SCHOOLS
 - . NEEDS
- . STRATEGIES
 - . SEARCH
 - . EQUIPMENT
- . LOADING DATA BASE

PHASING

- . EVERYTHING NOT READY TO LOAD AT BEGINNING
 - . WHAT IS FIRST INPUT
 - . DEVOTE PERSONNEL TO INPUT OWN INFO
- . YOUR MILESTONES FOR DEVELOPMENT OF PRODUCTS
 - . HARDWARE
 - . SIMPLE TERMINAL
 - . SOPHISTICATED EQUIPMENT

TASK INTERFACES

POI . POI
SM . SM
ARTEP . ARTEP
WHO IS RESPONSIBLE
HOW IS IT ACCOMPLISHED
SQT
TPDIS

HOW THE SCHOOLS SAY THEY WOULD USE TDIS

1. UPDATING POIs
2. UPDATING REFERENCE MATERIALS
3. UPDATING EXAMINATIONS
4. CREATING/REVISING MOS
5. RETRIEVE STATISTICAL INFORMATION (RESEARCH)
6. IDENTIFYING TECHNICAL DOCUMENTATION CHANGES TO EPMS
7. IDENTIFYING COMMON TASKS
8. ASSURING COMMONALITY WHERE REQUIRED
9. UPDATE SM, SQT & CM
10. WANT LESSON PLANS OF SCHOOLS AND STATUS
11. UPDATE TRAINING (& DESIGN OF)
12. USE FOR JOB/TASK ANALYSIS
13. USE FOR SM
14. USE FOR CM

15. USE FOR JB
16. USE FOR ITP
17. USE FOR POI
18. USE FOR SQT
19. STATUS OF INSTITUTION AND EXTENSION TRAINING COURSES
20. DETERMINE EQUIPMENT REQUIREMENTS FOR TRAINING, TESTING
21. QUALITY ASSURANCE
22. OBTAINING COMPLETED ANALYSIS FOR TASKS OF ANOTHER PROPONENCY
23. DEVELOP TASK INVENTORIES

TDIS DATA ELEMENTS

1. TASK NUMBER	15. TASK DUTY POSITION
2. TASK TITLE	16. TASK SKILL LEVEL
3. TASK CONDITIONS	17. TASK SOT TEST NUMBER
4. TASK MEASURES	18. TASK RELATED ARTEPS
5. TASK STANDARDS	19. TASK NUMBER REPLACED
6. TASK TRAINING GUIDANCE	20. TASK REPLACEMENT NUMBER
7. TASK REFERENCE MATERIALS	21. TASK FIELD MANUAL NUMBER
8. TASK TRAINING AIDS	22. TASK REVISION DATE
9. TASK EQUIPMENT	23. TASK PRINT DATE
10. TASK WEAPON SYSTEM	24. TASK TRAINING ENVIRONMENT
11. TASK HARDWARE TYPE	25. TASK SHORT TITLE
12. TASK PREREQUISITES	26. TASK STATUS
13. TASK POSTREQUISITES	27. SOT COMPONENT
14. TASK MOS	28. REMARKS

USEFULNESS OF TDIS

1. RESEARCH BY USING ANY DATA ELEMENT TO CROSS REFERENCE AND DISPLAY ANY OTHER TASK CONTAINING A LIKE ELEMENT.
2. PERCEIVE AND INSURE COMMONALITY THROUGHOUT A SCHOOL.
3. AVOID DUPLICATION OF ANALYSIS EFFORTS WITHIN SCHOOL.
4. AVOID DUPLICATION BETWEEN SCHOOLS.
5. APPLICABILITY OF A TASK TO A PARTICULAR MOS.
6. ELIMINATE PRINTING OF TASK SUMMARIES IN TRADOC CIR 351-1.
7. DETERMINE IF MOST CURRENT VERSION OF A TASK IS BEING USED.
8. PROVIDE LIST OF TASKS EACH SCHOOL IS USING, FOR WHICH THAT SCHOOL IS NOT PROPONENT. PROPONENTS CAN NOTIFY WHEN REVISIONS ARE APPROVED. ,
9. DETERMINE COMMONALITY WITHIN AND ACROSS CMFs.
10. TIMELY ACCESS TO COMPLETED TASKS.

11. PROVIDE TIMELY, COMPREHENSIVE REFERENCE, STORAGE AND RETRIEVAL FOR COMMON AND SHARED TASKS WITH MINIMAL MANPOWER AND MANHOUR EFFORT.
12. SIMPLE, QUICK RETRIEVAL OF STANDARDIZED INFORMATION THAT CUTS ACROSS SCHOOL AND MOS BOUNDARIES.
13. HANDY ACCESS TO A "PACKAGE" OF CONDITIONS, STANDARDS AND PERFORMANCE MEASURES WHEN SEARCHING FOR COMMONALITY.
14. PRESENT COMMUNICATION WITH PROPONENT SCHOOLS IS INADEQUATE.
15. THE PROPONENT COULD SURVEY TASKS TO DETERMINE USAGE BY OTHER SCHOOLS.
16. COMMON TASK MANAGEMENT.
17. RETRIEVAL OF TASK SUMMARIES.
18. SEARCHING DATA FIELDS FOR COMPARISONS OF TASK SUMMARY ELEMENTS TO DETERMINE COMMON AREAS.
19. PROVIDE LATEST DOCTRINAL CHANGES TO TASK SUMMARIES AND SQTs. TRADOC WOULD BE RESPONSIBLE FOR COMMON TASK MANAGEMENT.

PRESENT TDIS CONCEPT

- . HOST COMPUTER
- . DIAL UP TERMINALS
- . CENTRALIZED DB
 - . INPUT
 - . SEARCH
- . HARD COPY BY MAIL
- . INPUT BY MAIL
- . CHANGE BY MAIL

LOADING THE DATA BASE

- . LOAD PRESENT SM'S
 - . KURZWEIL
 - . KEYENCODE
 - . OTHER
- . YOUR INPUT AND IDEAS
 - . OTHER INFO
 - . OTHER SOURCES
- . LOWEST LEVEL PERSONNEL USING TDIS

SEARCH TECHNIQUES

- . INITIAL
 - . MAY BE LIMITED
 - . HARDWARE
 - . SOFTWARE
 - . TELECOMMUNICATIONS
 - . KEYWORD INDEXED
- . FINAL
 - . SEARCH RETURNS A LIST
 - . WORKING COPIES
 - . ADD & DELETE W/AUDIT TRAIL
 - . FLEXIBLE RECORD FORMAT
 - . ACCESSIBILITY THROUGH INEXPENSIVE TELECOMMUNICATIONS

REACHING THE GOAL

• INPUT FROM YOU

• 1 APR 80

• HOST COMPUTER

• SCHOOLS RESPONSIBLE

• TERMINALS

• DATA

ALL ELECTRONIC TRANSFER

- . AIMS
- . TDIS
- . ATSC
- . TRADOC
- . SQT
- . WORD PROCESSING
- . AUTOMATED CAMERA READY MECHANICALS
- . DISTRIBUTION
- . UPDATE
- . TRADOC TRAINING MANAGER

HumRRO JOB AIDS FOR USE IN IMPLEMENTATION OF THE
INSTRUCTIONAL SYSTEMS DEVELOPMENT (ISD)
MODEL (TRADOC PAMPHLET 350-30)

Presentation given by Russel E. Schulz at the Training Developments Institute Soft
Skill Analysis Seminar, Holiday Inn, Newport News, Virginia, 16 August 1979.

Incl 19

WHAT ARE HumRRO JOB AIDS?

In HumRRO Project IDA, job aids are being developed to assist instructional development personnel in the analysis, design and development of instructional materials. Project IDA is being conducted for the U.S. Army Research Institute for the Behavioral and Social Sciences and the Defense Advanced Research Projects Agency under contract DAHCl9-78-C-0010. The Job Aids being developed are intended to be stand-alone, step-by-step procedural guides which are equally useful to individuals at all experience levels of the instructional systems development process.

There are thirteen HumRRO Job Aids presently available. Each Job Aid is comprised of two documents, each of which is described below.

SLIDE 1 ON

Descriptive Authoring Flowcharts. The Descriptive Authoring Flowcharts are the primary documents used in the HumRRO Job Aids. They direct the user to specific guidance, examples and references provided in the Job Aid Manuals.

Job Aid Manuals. As stated above, the Job Aid Manuals provide the specific guidance, examples and references necessary to produce the product for the instructional systems development activity they cover. In addition, each Job Aid Manual contains one or more Worksheets to use in the development of the product.

SLIDE 1 OFF

The specific HumRRO Job Aids available are: (Flowchart Manual and Job Aids Manual for each) These correspond to the ISD Blocks in TRADOC Pamphlet 350-30.

SLIDE 2 ON

- Job Aid for Selecting Tasks for Training
- Job Aid for Conducting Task Analysis
- Job Aid for Analyzing Existing Courses
- Job Aid for Selecting Instructional Settings
- Job Aid for Developing Objectives
- Job Aid for Developing Tests
- Job Aid for Describing Entry Behavior
- Job Aid for Determining Sequence and Structure
- Job Aid for Specifying Learning Events and Activities
- Job Aid For Specifying Instructional Management Plan and Delivery System
- Job Aid for Review and Selection of Existing Materials
- Job Aid for Developing Instruction
- Job Aid for Validating Instruction

SLIDE 2 OFF

In addition to the printed versions of the above Job Aids, programming design guides are currently being developed to permit the Aids to be available on an inquiry-type, on-line computer version. It is intended that the programming design guides will be computer system independent.

Today I will describe two of the HumRRO Job Aids--ISD Block I.2 (Select Tasks/Functions) and ISD Block I.5 (Select Instructional Setting).

SLIDE 3 ON

ISD 1.2 SELECT TASKS/FUNCTIONS

SLIDE 3 OFF

WHAT IS THE TASK SELECTION JOB AID ALL ABOUT?

--The purpose of this aid is to help select tasks which require formal training, i.e., critical tasks.

Critical Tasks = Soldier's Manuals Tasks = Tasks to be Trained.

--It is not efficient in terms of time, personnel, money and other resources to train every soldier to perform every task of his MOS in every position in the world. This block requires critical and non-critical tasks be identified. This job aid will help in systematically making the distinction between tasks which require formal training (critical) and those which do not (non-critical).

--Some of the reasons a task may not be selected for training are:

- (1) The task can easily be performed without formal training because most job incumbents have previous experience, or the task is easy to "pick-up" from daily on-the-job experience (OJE). Note the distinction between on-the-job experience and the instructional setting called supervised on-the-job training (SOJT). (For a description of SOJT, see HumRRO Job Aid for ISD I.5 Select Instructional Settings.
- (2) The task may be part of the job, but it is not essential to adequate job performance.
- (3) The task may be quite similar to other tasks which require formal training. It may be that if a soldier is trained to do one of the tasks he will be able to perform the other similar tasks without further, formal training.

SLIDE 4 ON

WHAT ARE THE FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING?

SLIDE 4 OFF -- SLIDE 5 ON

Step 1. Each candidate task is rated according to three selection criteria:

SLIDE 5 OFF -- SLIDE 6 ON

- (1) Time to train by on-the-job experience (OJE)
- (a) Time to train on the job (on-the-job experience, not SOJT) is a relative measure of how difficult it is to perform the task. Some tasks on a job are so easy to perform they require no formal training. Other tasks are so complicated that the soldier can perform them adequately only after lengthy, formal training. Other tasks lie in-between these two extremes. In rating each task on this criterion it is necessary to consider how difficult it would be for a soldier to learn the task on his own, without supervisor, as measured by the time it would take in the OJE mode.
- (b) Things to consider
- Amount of supervision required
 - Experience of the soldier at previous skill levels
 - Number of elements which make up the task
 - Type of task, fixed sequence, alternate path or combination
 - Amount of practice required to attain proficiency
- (c) Sources of information
- Field survey of job supervisors and job incumbents who have learned or taught the task recently
 - Panel of recent job supervisors and job incumbents
 - CODAP data
 - Own judgement, if has learned/taught task recently
- (d) Time to train OJE is estimated using the following scale:



SLIDE 6 OFF -- SLIDE 7 ON

(2) Consequences of inadequate performance

(a) This is a relative measure of the seriousness of incorrectly performing a task. It is a relative measure because we recommend comparing one task to all the other tasks in the MOS being analyzed. (Not comparing the task to other tasks in a different MOS. The focus is on both mission accomplishment and battle-field survival. While the tasks of a clerk typist may not have a directly observable impact on battle-field survival to the extent that an infantry rifleman's tasks do, they certainly impact on mission accomplishment. Both aspects must be kept in mind. Frequency of performance is not necessarily related to this factor. Tasks which are performed frequently may not have extreme negative effects if they are inadequately performed, while tasks performed only rarely may have disastrous effects if not done correctly.

(b) Things to consider

- Wasted time, inefficiency
- Destroyed materials/equipment
- Loss of lives/injury

(c) Sources of information

- Field survey of job supervisors
- Panel of recent job supervisors
- CODAP data
- Own judgment

(d) Consequences of inadequate performance is estimated using the following scale:



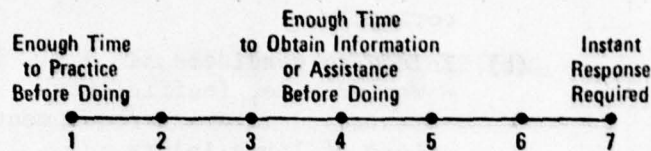
SLIDE 7 OFF -- SLIDE 8 ON

(3) Probability of emergency performance

(a) Probability of emergency performance is estimated by figuring the amount of time the soldier has between the time the need for task performance becomes evident and the actual time performance must begin. There are some tasks for which there can be no delay (a true emergency)--instant response is required. For other tasks a delay of a few minutes might be quite acceptable,

or even mandatory, while the soldier gets advice, checks technical manuals, regulations, etc. And for some tasks there might be time to assemble a group of experts and/or practice the task before proceeding.

- (b) Things to consider
 - The effects of time delays on the intended outcome of the task
 - The variety of situations in which task performance may be required
- (c) Sources of information
 - Field survey of job supervisors
 - Panel of recent job incumbents
 - CODAP data
 - Own judgment
- (d) Probability of emergency performance is estimated using the following scale:



SLIDE 8 OFF -- SLIDE 9 ON

Step 2. Tasks with high selection criteria ratings are identified

- (1) The requirement for training is determined by first considering each selection factor (time to train OJE, etc.) separately and then considering the three factors together.
- (2) A task should not be identified as requiring training on the basis of a single factor rating, unless that rating is extremely high, a 6 or 7.
- (3) When all three factors are considered together, the rating should be 12 or more in order to identify the task as requiring training.
- (4) These criterial values may be adjusted to fit your particular situation. The important thing is to determine the
 - single factor criterion
 - total factor (task value) criterionand apply these values throughout the MOS you are working in.

SLIDE 9 OFF -- SLIDE 10 ON

Step 3. Tasks requiring training are examined for similarity of performance requirements

- (1) If the performance requirements are highly similar for two or more tasks which require training, it should not be necessary to train each task, but only the most representative task of that group. Therefore, in this step it is determined if two or more tasks are similar due to:
 - equipment/materials similarity
 - performance similarity
- (2) Sources of information
 - Task summary sheets or soldier's manual
 - TMs and FMs
 - TOEs and TDAs
 - SMEs
 - Own judgment

SLIDE 10 OFF -- SLIDE 11 ON

Step 4. Administrative review of tasks recommended for training takes place

- (1) In this step an alternate panel of subject matter experts review the Critical Task Inventory Sheet. The purpose of having an alternate (different) group of SME's review the CTI Sheet is to provide an objective view. A panel of three SME's is sufficient. The panel should be asked to verify the selection factor ratings and task similarity judgments.
- (2) CTI Sheets are submitted to the supervisor for review and approval.

SLIDE 11 OFF -- SLIDE 12 ON

WHAT ARE THE PRODUCTS THAT RESULT FROM THE SELECT TASKS/FUNCTIONS JOB AID?

The input for this block is a listing of all the tasks which are performed in a particular skill level of an MOS. The output, or products, include:

- The list of critical tasks for which formal training is authorized.
- The worksheets on which the task selection decisions are documented.

SLIDE 12 OFF

SLIDE 13 ON

ISD I.5 SELECT INSTRUCTIONAL SETTING

WHAT IS THE INSTRUCTIONAL SETTINGS JOB AID ALL ABOUT?

The purpose of this aid is to help choose instructional settings (training locations) for tasks selected for training within each skill level. Due to advancements in instructional technology it is often more cost-beneficial and efficient to train tasks in a non-institutional (extension) setting. This aid is designed to help identify as many tasks as possible for which extension training is appropriate.

WHAT ARE THE THREE INSTRUCTIONAL SETTINGS?

Institution (INST)	Supervised On-The-Job Training (SOJT)	Self-Study
Training conducted at TRADOC resident schools and includes: OSUT - One Station Unit Training. PNCOC - Primary Noncommissioned Officer Course BNCOC - Basic Noncommissioned Officer Course ANCOC - Advanced Noncommissioned Officer Course	Training conducted at the soldier's unit	Training administered during individuals own time, usually at the soldier's unit and includes: Self-teaching exportable packages (STEP) Training Extension Courses Job Performance Aids Study Guides Correspondence Courses Films, tapes, etc.
Training always conducted under supervision of qualified instructors	Training supervised by best qualified NCOs in unit	Little supervision required

WHAT ARE ADVANTAGES AND DISADVANTAGES OF THREE INSTRUCTIONAL SETTINGS?

Instructional Setting	Advantages	Disadvantages
INSTITUTION	<p>Usually best setting for training common skill level tasks or tasks that are performed by large percentage of soldiers in the MOS/skill level</p> <p>Sophisticated training resource and expertise available</p>	<p>Lack of real world environment</p> <p>High cost of soldier's housing and travel</p> <p>Time is spent away from job assignment</p>
SUPERVISED ON-THE-JOB TRAINING	<p>Effective for training tasks that can be learned faster or better with hands-on experience</p> <p>Soldier contributes to unit's mission while learning</p>	<p>May tie up unit's equipment and thus equipment may not be available for operational use</p> <p>May overburden supervisors</p> <p>Reduces time available in unit for operational requirements</p>
SELF-STUDY	<p>Effective for training tasks which can be learned without an instructor or where little supervision is required</p> <p>Can be accomplished at trainee's convenience</p>	<p>If study occurs during normal duty hours, this type of training may reduce time available in unit for operational requirements</p> <p>May require soldier to devote considerable off-duty time to study</p>

SLIDE 13 OFF -- SLIDE 14 ON

WHAT ARE THE FOUR MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING?

SLIDE 14 OFF -- SLIDE 15 ON

Step 1. Tasks selected for training are listed and categorized by skill level and duty position

- (1) Sources of information for duty position designations
 - (a) Output from ISD I.2 and ISD I.3
 - (b) AR 611 series for existing jobs
 - (c) Individual who developed the job identification for new MOS only
 - (d) Soldiers Manual
 - (e) TOE/MTOE/TDA's

SLIDE 15 OFF, SLIDE 16 ON

Step 2. Task performance data are obtained and recorded for each task. That is:

- (1) In which duty position is the task performed?
 - (a) Sources of information
 - Output from ISD I.2 and ISD I.3
 - Field Survey
 - CODAP
 - Panel of recent incumbent
 - Soldiers Manual
 - Panel of subject matter experts
 - Own judgment
- (2) What percentage of soldiers perform the task?
 - (a) For each task the percent of soldiers within the skill level who perform the task is identified.
 - (b) Sources of information
 - Output form ISD Block I.2
 - CODAP
 - Field Survey
 - Panel of recent job incumbents
 - Panel of subject matter experts
 - Own judgment

SLIDE 16 OFF -- SLIDE 17 ON

Step 3. Initial assignment of the task to one of three instructional settings (institution, supervised on-the-job training, or self-study) is made based on the answers to the following 14 questions.

SLIDE 17 OFF -- SLIDE 18 ON

- (1) Is task a common skill level task? (i.e., Is task performed in all duty positions?)
- (2) Is task performed by a high percentage of soldiers? (i.e., Should task be classified as a high performance task?)
 - (a) The criterion for High Performance Task is established for all tasks in the skill level before asking this question.

[IF THE ANSWER TO QUESTION 1 OR 2 IS YES, QUESTION 3 AND 4 ARE ASKED. IF NO, QUESTIONS 5 THROUGH 8 ARE NEXT ASKED.]

- (3) Is task performed in a similar manner in various duty positions and units?
 - (a) Generally a task classified as either a common skill level task or a high percent performing task will be trained in the resident school (institution) setting. In question 3 we question whether task training requirements are essentially the same independent of the mission, equipment allocation, geographical location, etc., of units in which the job incumbent is assigned. If task training requirements are pretty much the same an institution training setting should be strongly considered. On the other hand, if training requirements differ considerably between units or duty positions, training the unit (SOJT or self-study) should be considered.
- (4) Is proficiency in task performance retained over time? (i.e., Not easily forgotten?)
 - (a) We all know that there are some tasks we remember how to do more easily than others. Factors which influence retention should be considered when selecting the instructional setting. There is no point in training a task in the institution if the soldier can't remember how to perform the task when he arrives on the job. SOJT or self-study should be considered when training retention is likely to be low.

[IF BOTH QUESTION 3 AND 4 ARE ANSWERED "YES" THE TASK IS INITIALLY ASSIGNED TO THE INSTITUTIONAL INSTRUCTIONAL SETTING. IF EITHER IS GIVEN A "NO" ANSWER QUESTIONS 5 THROUGH 8 ARE ASKED]

- (5) Is there a considerable amount of theory to be taught with this task?
- (6) Must this task be performed immediately on entry to the job? (i.e., Before it could be trained on the job)
- (7) Is this task a prerequisite for learning and/or performing other school trained tasks? (i.e., Must the soldier be able to perform this task in order to learn other tasks taught in the school?)
- (8) Are equipment and/or facilities only available for training at the school?

[IF 1 OR MORE "YES" RESPONSES WERE GIVEN TO QUESTION 5 THROUGH 8 THE TASK IS INITIALLY ASSIGNED TO INSTITUTIONAL INSTRUCTIONAL SETTING. IF ALL "NO" RESPONSES WERE GIVEN QUESTION 9 THROUGH 11 ARE ASKED.]

- (9) Is the equipment required for individual training of this task in the unit available at most units?
- (10) Are personnel with the necessary expertise available at most units to conduct the training for this task?
- (11) Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?

[IF ALL QUESTIONS (9-11) ARE ANSWERED "YES" THE TASK IS INITIALLY ASSIGNED TO SOJT INSTRUCTIONAL SETTING. IF "NO" QUESTIONS 12 THROUGH 14 ARE ASKED.]

- (12) Can this task be learned with very little supervision? (i.e., Can the soldier learn the task through self-study?)
- (13) Does the soldier's schedule allow sufficient time for independent study?
- (14) Can everything required for training (which is not already available in the field be included in the training package and is it inexpensively exportable?

[IF ALL QUESTIONS 12-14) ARE ANSWERED "YES" THE TASK IS INITIALLY ASSIGNED TO SELF-STUDY INSTRUCTIONAL SETTING. IF "NO" QUESTIONS 9 THROUGH 14 ARE RE-EVALUATED TO DETERMINE IF INSTRUCTIONAL SETTING CAN BE DETERMINED WITHOUT SUPERVISORY HELP.]

SLIDE 18 OFF -- SLIDE 19 ON

Step 4. Administrative review and final selection of instructional setting.

- (1) In Step 3, tasks were assigned initially to one of the three instructional settings. In this step each task is reviewed to determine if the initial assignment is still the best instructional setting on the basis of expert opinion.
- (2) After reviewing each task and asking questions similar to those previously asked, any indicated changes in instructional setting is made. The rationale for each change is to be carefully documented.
- (3) The task listing with the final selections of instructional settings is submitted to the supervisor for review and approval.

SLIDE 19 OFF, SLIDE 20 ON

WHAT IS THE PRODUCT THAT RESULTS FROM THE SELECT INSTRUCTIONAL SETTING
JOB AID?

- This job aid will result in a listing of all critical tasks in which each task is assigned for training to one of the following instructional settings:
 - a. Institution (Resident school training)
 - b. Supervised On-the-Job Training (SOFT)
 - c. Self-study
- This output will be especially useful in the preparation of the Commander's Manual.

SLIDE 20 OFF

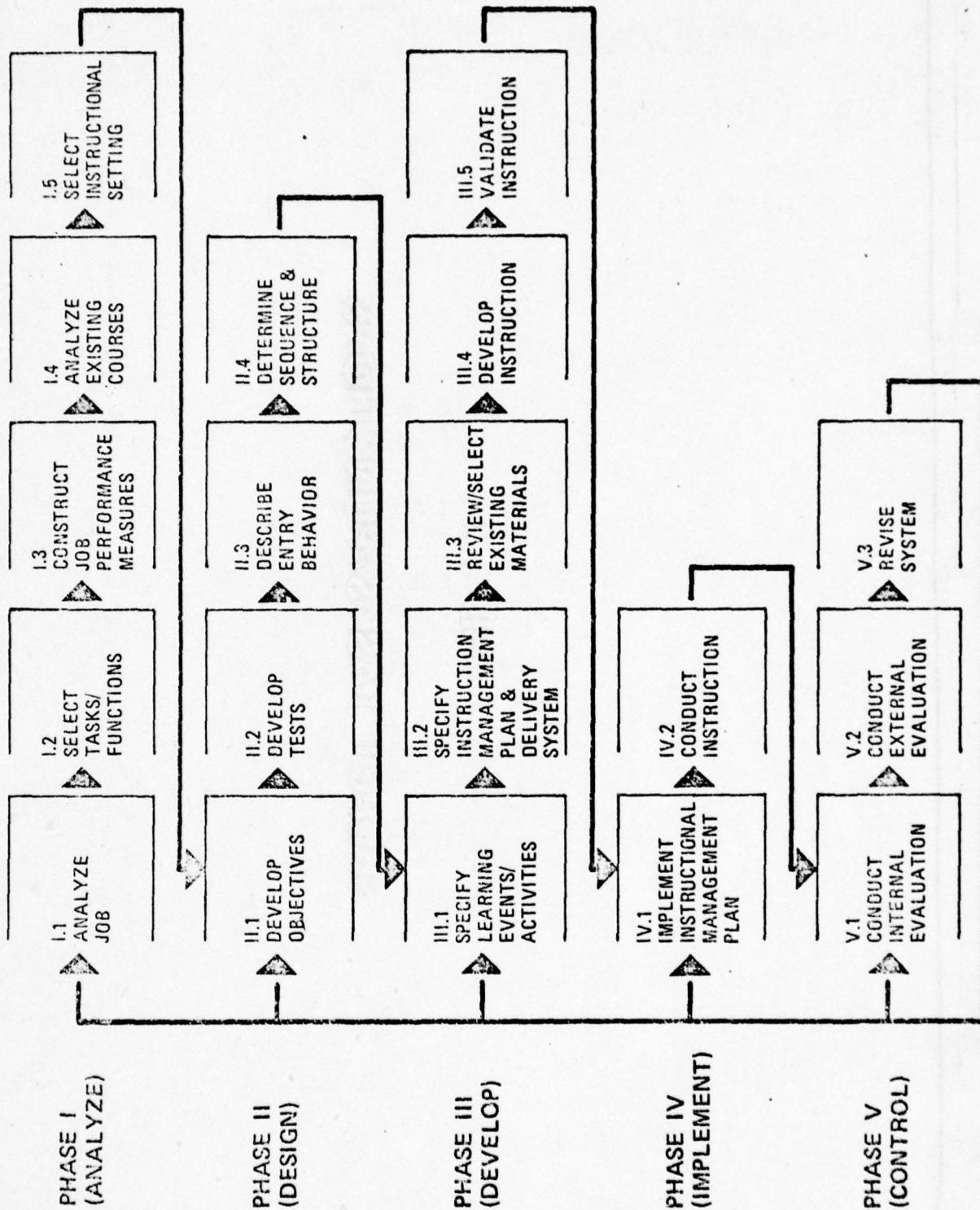
HumRRO JOB AIDS

**Step-by-step procedural guides used
for analysis, design and development of
instructional materials.**

EACH JOB AID CONSISTS OF TWO DOCUMENTS

- 1. Descriptive Authoring Flowchart**
- 2. Job Aid Manual**

FIVE PHASES OF INSTRUCTIONAL SYSTEMS DEVELOPMENT (ISD)



ISD 12

SELECT TASKS/FUNCTIONS

FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

- Priority of emergence performance
- Consistency of emergence performance
- Time to train by on-the-job experience (OTE)

Step 1: Each candidate task is rated according to three selection criteria:

FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

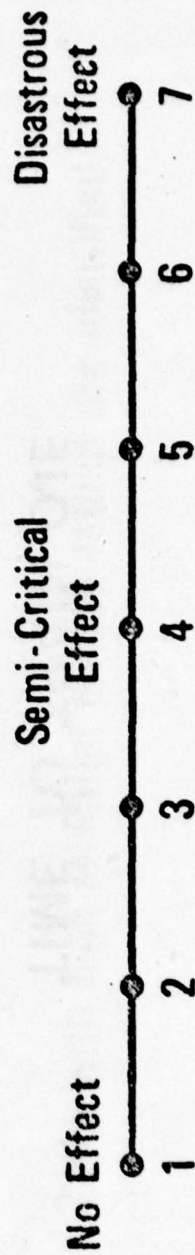
Step 1. Each candidate task is rated according to three selection criteria:

- Time to train by on-the-job experience (OJE)
- Consequences of inadequate performance
- Probability of emergency performance

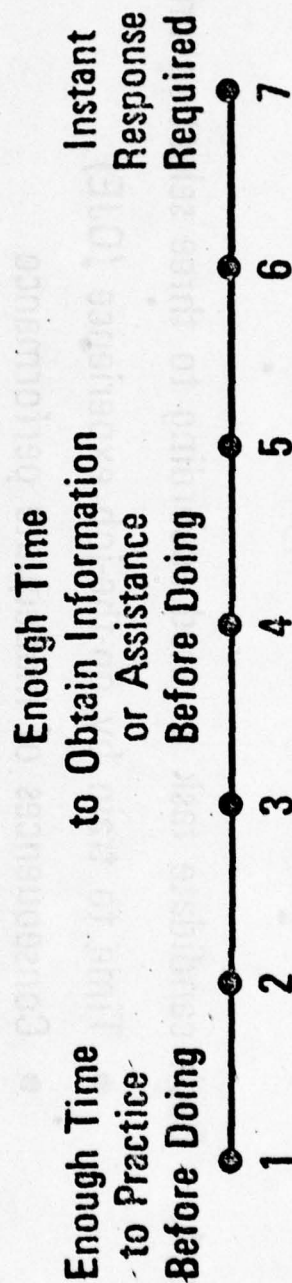
TIME TO TRAIN OJE



CONSEQUENCES OF INADEQUATE PERFORMANCE ON MISSION ACCOMPLISHMENT



PROBABILITY OF EMERGENCY PERFORMANCE



FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

Step 1. Each candidate task is rated according to three selection criteria:

- Time to train by on-the-job experience (OJE)
- Consequences of inadequate performance
- Probability of emergency performance

Step 2. Tasks with high selection criteria ratings are identified.

12

FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

Step 1. Each candidate task is rated according to three selection criteria:

- Time to train by on-the-job experience (OJE)
- Consequences of inadequate performance
- Probability of emergency performance

Step 2. Tasks with high selection criteria ratings are identified.

Step 3. Tasks requiring training are examined for similarity of performance requirements.

FOUR MAJOR STEPS IN SELECTING TASKS FOR TRAINING:

Step 1. Each candidate task is rated according to three selection criteria:

- Time to train by on-the-job experience (OJE)
- Consequences of inadequate performance
- Probability of emergency performance

Step 2. Tasks with high selection criteria ratings are identified.

Step 3. Tasks requiring training are examined for similarity of performance requirements.

Step 4. Administrative review of tasks recommended for training takes place.

PRODUCTS

The input for this block is a listing of all the tasks which are performed in a particular skill level of an MOS. The output, or products, include:

- The list of critical tasks for which formal training is authorized.
- The worksheets on which the task selection decisions are documented.

ISD 115

SELECT INSTRUCTIONAL SETTING

FOUR MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING:

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Step 1. Tasks selected for training are listed and categorized by skill level and duty position.

FOUR MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING:

- Step 1.** Tasks selected for training are listed and categorized by skill level and duty position.
- Step 2.** Task performance data is obtained and recorded for each task. That is:
 - a. In which duty position is the task performed?
 - b. What percentage of soldiers perform the task?

FOUR MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING:

- Step 1. Tasks selected for training are listed and categorized by skill level and duty position.
- Step 2. Task performance data is obtained and recorded for each task. That is:
 - a. In which duty position is the task performed?
 - b. What percentage of soldiers perform the task?
- Step 3. Initial assignment of the task to one of three instructional settings (institution, supervised on-the-job training, or self-study) is made based on the answers to as many as 14 questions.

22

11

QUESTIONS USED FOR SELECTING INSTRUCTIONAL SETTING

INSTITUTION

1) Common Skill Level Task?

2) High Performance Task?

3) Training Requirements Highly Similar?

4) High Task Retention?

SOJT

9) Equipment Available at Unit?

10) Supervision Available at Unit?

11) Time to Train Available at Unit?

5) High Theory Content?

6) Need for Immediate Performance?

7) Prerequisite for task selected for school?

8) Equipment/Facilities Unique to School?

SELF-STUDY

12) Little Supervision Required?

13) Time to Study Available?

14) Lessons/Equipment Exportable?

FOUR MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING:

- Step 1. Tasks selected for training are listed and categorized by skill level and duty position.
- Step 2. Task performance data is obtained and recorded for each task. That is:
 - a. In which duty position is the task performed?
 - b. What percentage of soldiers perform the task?
- Step 3. Initial assignment of the task to one of three instructional settings (institution, supervised on-the-job training, or self-study) is made based on the answers to as many as 14 questions.
- Step 4. Administrative review and final selection of instructional setting.

2

PRODUCT

- This job aid will result in a listing of all critical tasks in which each task is assigned for training to one of the following instructional settings:
 - a. Institution (Resident school training)
 - b. Supervised On-the-Job Training (SOJT)
 - c. Self-study
- This output will be especially useful in the preparation of the Commander's Manual.

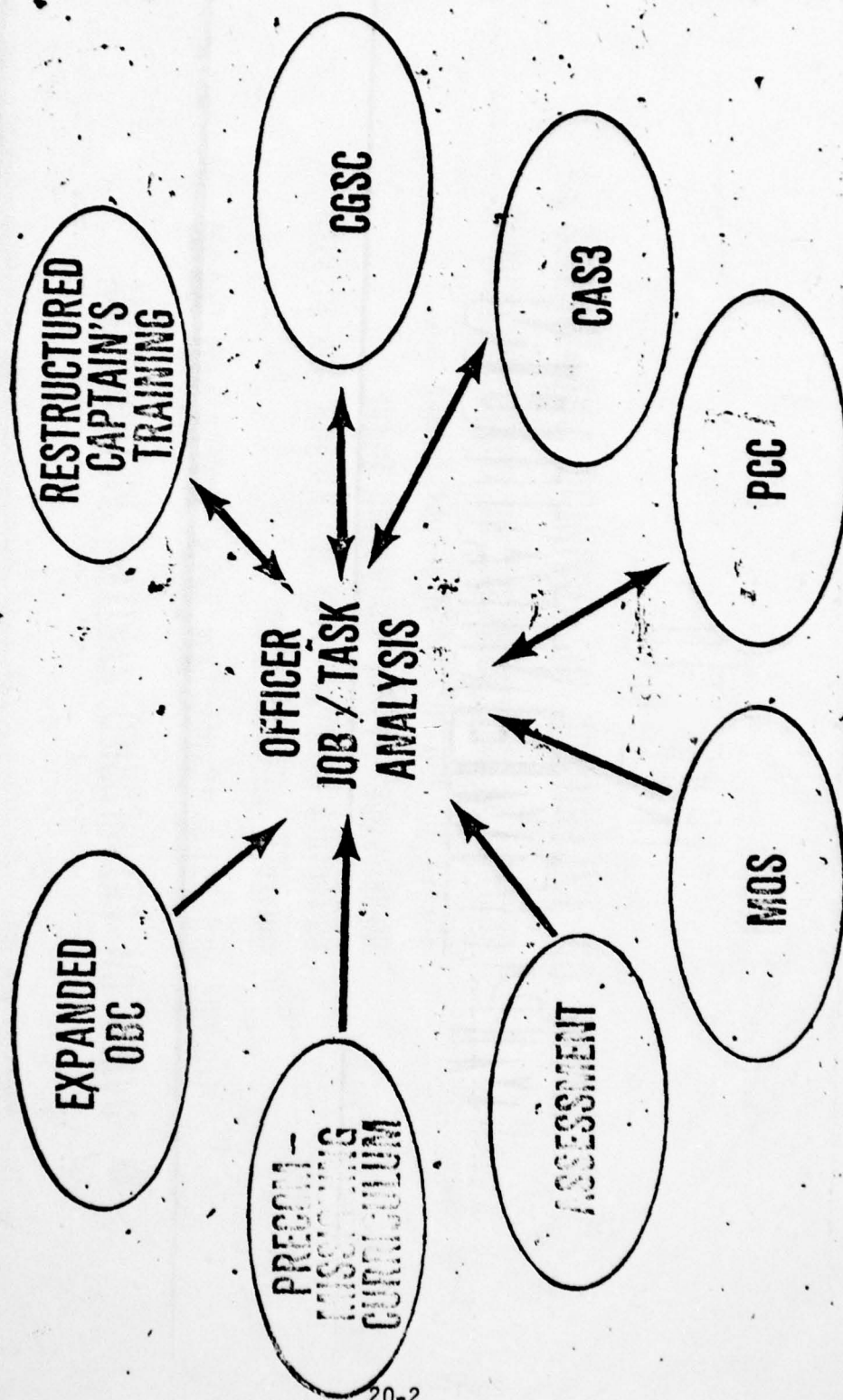
RETU IMPLEMENTATION

GRAPHIC AIDS SERVICE CENTER
FEDERAL BUREAU OF INVESTIGATION

WORK
ORDER

No. 790391

RETO IMPLEMENTATION



20-2

PHIC AIDS SERVICE CENTER
FORT MONROE, VIRGINIA 23651

WORK ORDER No. 79-0391

OBJECTIVES

- PROVIDE A RATIONAL BASIS FOR IMPLEMENTING THE POLICIES AND PROGRAMS RECOMMENDED BY RETO AND APPROVED BY THE CHIEF OF STAFF, ARMY
- PROVIDE ANALYTICALLY-DERIVED DATA ON OFFICER JOBS UPON WHICH TO BASE TRAINING, RESOURCE AND OCCUPATIONAL STRUCTURE DECISIONS
- ELIMINATE REDUNDANCY IN TRAINING DEVELOPMENT THROUGH THE USE OF COMMON TASK MANAGEMENT
- DEVELOP COST EFFECTIVE TRAINING WHICH WILL MEET PROFESSIONAL DEVELOPMENT REQUIREMENTS WHILE PROVIDING MAXIMUM SCHEDULING FLEXIBILITY TO THE SERVICE SCHOOL, MILPERCEN, AND THE INDIVIDUAL OFFICER
- IMPLEMENT A COHERENT OFFICER EDUCATION/TRAINING SYSTEM EXTENDING FROM PRECOMMISSIONING/PREAPPOINTMENT THROUGH COLONEL/CW4

Graphic Aids Service Center

FORT MONROE, VIRGINIA

WORK ORDER NO. 790542 ITEM NO. OTS.D

OFFICER JO3/TASK ANALYSIS

● BASED ON ESTABLISHED SYSTEMS METHODOLOGY

(TRADOC REG 351-4, TRADOC PAM 351-4, TRADOC PAM 350-30)

- JOB/TASK ANALYSIS PLAN
- COLLECTION OF DATA (TASK INVENTORIES, JOB RELATED INFORMATION, TARGET POPULATION DATA)
- SURVEY OF JOB INCUMBENTS/SUPERVISORS
- ANALYSIS OF DATA/SELECTION OF TASKS FOR TRAINING

● BUILDS ON EXPERIENCE OF TRAINING PROPONENTS

Graphic Aids Service Center

FORT MONROE, VIRGINIA

WORK ORDER NO. 746547 ITEM NO. 07SD

AD-A075 974

ARMY TRAINING DEVELOPMENTS INST FORT MONROE VA

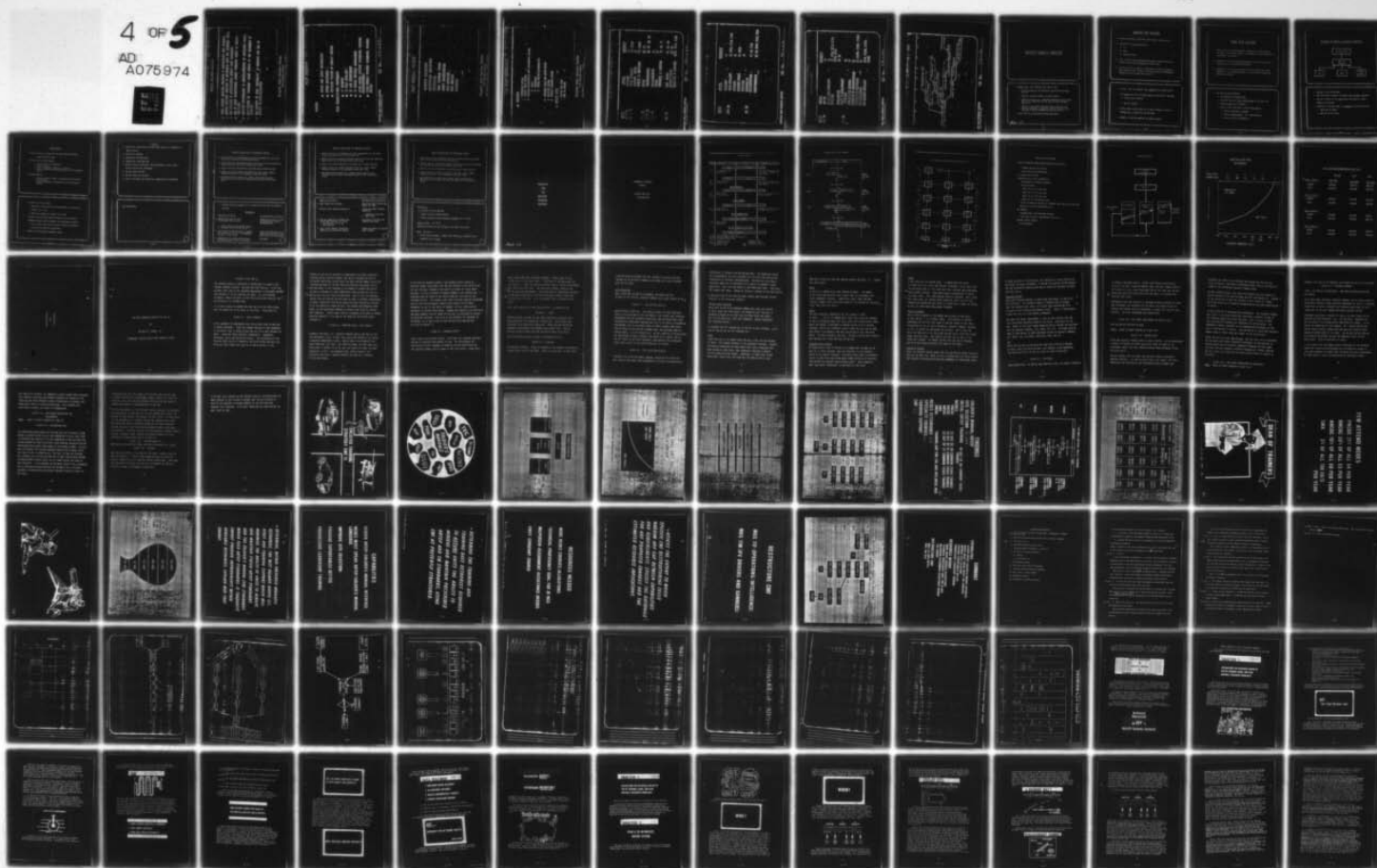
F/G 5/9

PROCEEDINGS OF THE TRADOC CHIEFS OF ANALYSIS SEMINAR HELD IN NE--ETC(U)
OCT 79

UNCLASSIFIED

NL

4 OF 5
AD
A075974



OFFICER JOB/TASK ANALYSIS

- TOTAL OFFICER ANALYSIS PROGRAM IS COORDINATED AND MANAGED
- OFFICER JOB/TASK ANALYSIS IS INTEGRATED INTO THE RESOURCE CYCLE
- JOB ANALYSIS IS ACCOMPLISHED JOINTLY WITH MILPERCEN
- USE OF ARMY OCCUPATIONAL SURVEY PROGRAM (AOSP) IS INSTITUTIONALIZED
- ANALYSIS METHODOLOGY IS VERIFIED/MODIFIED IN SUCCESSIVE PILOTS
- MANAGEMENT OF "COMMON" TASKS STARTS AT THE BEGINNING OF ANALYSIS
- THE CONCEPT OF TASK "CRITICALITY" IS MODIFIED FOR USE IN OFFICER TRAINING/EDUCATION

Graphic Aids Service Center

FORT MONROE, VIRGINIA

WORK ORDER NO 748 542 ITEM NO OTSD

PILOT PROGRAM

PURPOSE

- REFINE AND VERIFY METHODOLOGY
- REFINE MILESTONES
- ESTABLISH SYSTEM OF QUALITY CONTROL

PILOT SPECIALTY/MOS PROPONENTS

- 11 INFANTRY
- 13 FIELD ARTILLERY
- 31 LAW ENFORCEMENT
- 73 MISSILE MATERIEL MANAGEMENT
- 214EO MISSILE SYSTEMS TECHNICIAN, PERSHING
(ORGANIZATIONAL)
- 214EV MISSILE SYSTEMS TECHNICIAN, PERSHING
(DS/GS)

PILOT PROGRAM PHASING

INVENTORY DEVELOPMENT

QUESTIONNAIRE DEVELOPMENT

COORDINATION

FINAL TECHNICAL REVIEW

SURVEY ADMINISTRATION

DATA REDUCTION

DATA ANALYSIS

EVALUATION

Graphic Aids Service Center

FORT MONROE, VIRGINIA

WORK ORDER NO. 790542 ITEM NO. 075D

PILOT OFFICER QUESTIONNAIRES

● CONTENTS

- I BACKGROUND SECTION
- II ACTIVITY (TASK) SECTION
- III POSITION RESPONSIBILITIES AND REQUIREMENTS SECTIONS
 - A. SKILLS
 - B. KNOWLEDGES
 - C. SPECIAL ABILITIES/RESPONSIBILITIES

- IV ADDITIONAL SKILLS AND DUTIES SECTION
- V EQUIPMENT SECTION
- VI PERSONAL COMMENTS SECTION

○ SCALES USED

- RELATIVE TIME SPENT
- PART OF POSITION

Graphic Aids Service Center

FORT MONROE, VIRGINIA

WORK ORDER NO. _____

ITEM NO. _____

14 79 OFFICE ANALYSIS STARTS

<u>START</u>	<u>SCHOOL</u>	<u>SPECIALTY</u>
Ongoing (PILOT 1)	INFANTRY	11
	FIELD ARTILLERY	13, 214E0
	MILITARY POLICE	31
	MISSILE & MUNITIONS	73, 214EV
APR 79 (PILOT 2)	SIGNAL	25, 27
	TRANSPORTATION	86, 87, 88, 95
	TRANSPORTATION	71
	SIGNAL	72
JUL 79	ORDNANCE & CHEMICAL	74, 76, 77
	INST. ADMIN	41, 42, 44
	QUARTERMASTER	82, 92
	ORDNANCE & CHEMICAL	421A, 441A, 630A

START

SCHOOL

SPECIALTY

APR 80

INFANTRY

11

FIELD ARTILLERY

13, 201A, 211A, 214G

AVIATION

15

MILITARY POLICE

31, 951A

ORDNANCE

74

INSTITUTE OF

JUL 80

ADMINISTRATION

41, 42, 711A

QUARTERMASTER

82, 92, 401A, 761A, 762A

GRAPHIC AIDS SERVICE CENTER

WORK
ORDER

No. 79 0391

ARMY GRADE ADVANCEMENT STARTS
(COMBANY GRADE ONLY)

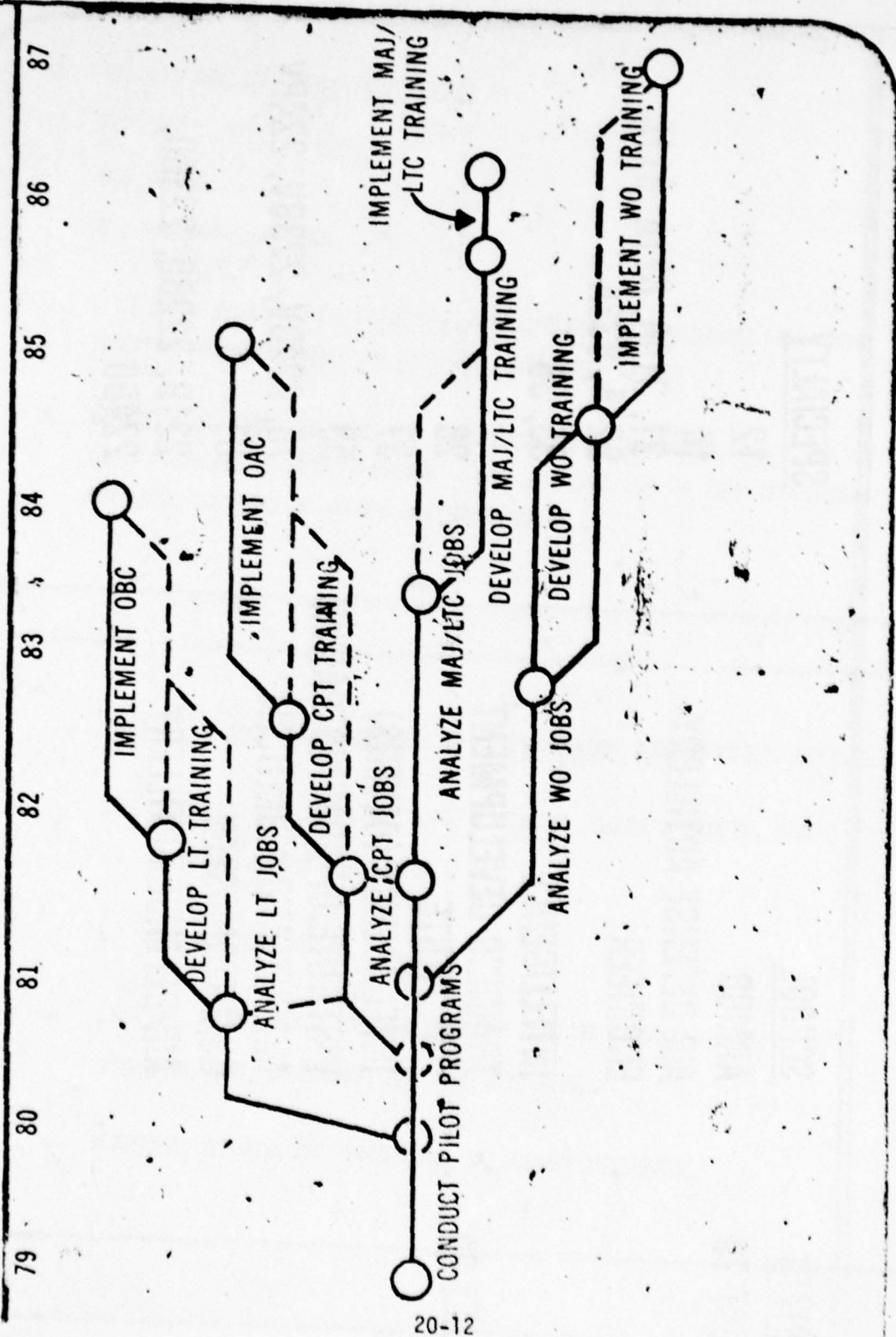
<u>START</u>	<u>SCHOOL</u>	<u>SPECIALTY</u>
GCT 79	ARMOR	12
	AIR DEFENSE ARTILLERY- ENGINEER	14
		21, 310A, 621A, 811A, 821A, 833A
	INTELLIGENCE	35, 36
JAN 80	TRAINING DEVELOPMENT INSTITUTE	28
	INTELLIGENCE (DEVENS)	37
	INSTITUTE OF ADMINISTRATION	53
	MISSILE AND MUNITIONS QUARTERMASTER	75, 222BV, 223BV, 224BV 81
	AIR DEFENSE ARTILLERY	221B, 222BQ, 223BQ, 224BQ

20-11

PHIC AIDS SERVICE CENTER
FORT MONROE, VIRGINIA 23651

WORK ORDER No. 79-0391

ANALYZE PILOT PROGRAMS AND TRAINING DEVELOPMENTS PROGRAM



20-12

HIC AIDS SERVICE CENTER
FORT MONROE, VIRGINIA 23651

WORK
ORDER

No. 790391

ENLISTED TRAINING STRATEGY

- MAJOR ISSUE: NCO LEADERSHIP FOR ARMY OF 80'S
- DEV COMPREHENSIVE TNG STRATEGIES WHICH BEST MEET NEEDS OF UNIT.
- COMPLETE REQUIRED COURSES TO SUPPORT NCOES.
- FORMALIZE NCOES (e.g., REGULATORY PROCEDURES WHICH INSURE NCO RECEIVE NECESSARY TNG FOR JOBS. TO WHICH ASSIGNED. (AR 351-1))
- ESTABLISH REGULATORY PROCEDURES WHICH FORMALIZE LINK BETWEEN INDIVIDUAL & COLLECTIVE TRAINING IN UNITS, AND THE ROLE OF NCO AS TRAINERS IN UNITS (AR 350-1).
- FOCUS TODAY IS ON ENLISTED TRAINING STRATEGIES

Incl 21

GUIDANCE FOR ANALYSIS

1. RESULTS OCCUR ONLY IN OPERATING UNITS OF ARMY, ACTIVE AND RC.
2. RESULTS ARE THE INTERACTIVE EFFECT OF:
 - A. IET
 - B. NCOES
 - C. TRAINING SUPPORT
3. THUS, YOU MUST WEIGH TRADEOFFS AMONG THESE TO DETERMINE MOST COST EFFECTIVE WITHIN GIVEN (OR ASSUMED) RESOURCE LEVELS
4. DO NOT LOSE SIGHT OF NEED FOR "MOBILIZATION" TRAINING, BUT BEAR IN MIND PROBABLE HIGHER "PAYOFFS" FROM APPLICATION OR ANY INCREMENTAL RESOURCE INCREASE TO NCOES RATHER THAN IET.

- CG LTR, 1 MAY 79, PROVIDES THIS FRAMEWORK FOR SCHOOLS EFFORT.
- THE TRAINED NCO SETS THE UPPER LIMITS, WITHIN UNITS, FOR BOTH:
 - INITIAL ENTRY SOLDIERS
 - TNG SPT PRODUCTS
- INITIAL ENTRY SOLDIER AND TNG SPT MAY BE MARGINAL--WITH OUT-
STANDING NCO, WE COULD GET THE JOB DONE.
- HOWEVER, IF NCO ARE MARGINAL, WE COURT DISASTER.

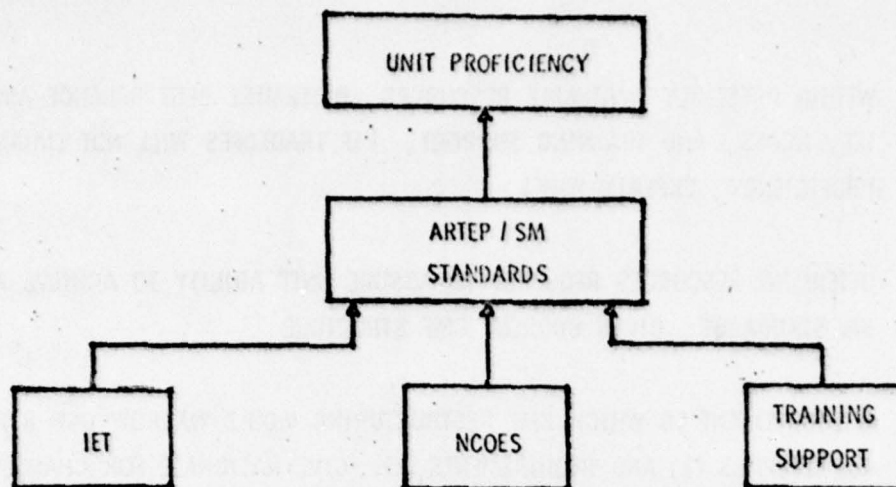
THREE PART ANALYSIS

1. WITHIN PRESENTLY AVAILABLE RESOURCES, DETERMINE BEST BALANCE AMONG IET, NCOES, AND TRAINING SUPPORT. (IF TRADEOFFS WILL NOT ENHANCE UNIT PROFICIENCY, EXPLAIN WHY)
2. DETERMINE RESOURCES REQUIRED TO ASSURE UNIT ABILITY TO ACHIEVE ARTEP / SM STANDARDS, GIVEN CURRENT CMF STRUCTURE
3. ASSESS EXTENT TO WHICH CMF RESTRUCTURING WOULD NARROW GAP BETWEEN CAPABILITIES (1) AND REQUIREMENTS (2). GIVE RATIONALE FOR CHANGES AND RESOURCE IMPLICATIONS

-- CG LTR SPECIFIED GUIDANCE:

- USE JUDGMENT AND COMMON SENSE
- SOLUTIONS BASED ON TOTAL UNDERSTANDING OF THE UNITS FOR WHICH SCHOOLS HAVE PROPONENCY.
- DEVELOP THREE STRATEGIES--ESTABLISH MILESTONES
 - CURRENT STRUCTURE & TRAINING
 - PROPOSED REQUIREMENTS - ETS - UNCONSTRAINED.
 - BEST CASE--ETS--W/"TRADEOFFS"

RESULTS OF TRAINING/TRAINING SUPPORT



- THE KEY IS UNIT PROFICIENCY
- UNIT PROFICIENCY MEASURED IN TERMS OF SM AND ARTEP STANDARDS
- ETS MUST ACCOUNT FOR ALL THREE MAJOR TNG PRODUCTS--CANNOT ADDRESS IN ISOLATION
- IMPORTANT TO SET ETS EFFORT IN FRAMEWORK OF POLICY DIRECTION:
 - WHERE ARE WE GOING?
 - HOW WILL WE GET THERE?

STATUS REPORT

- CA MOS STRATEGIES VIABLE AND IN PLACE EXCEPT FOR ANCOC
 - ANCOC UNDER REVISION
- CSS MOS PICTURE VERY UNEVEN
 - FEW COMPLETE MOS STRATEGIES
 - FEWER COURSES
 - SEVERE ATTENDANCE SHORTFALL AT PTC/BTC
 - CRITICAL NEED TO TRAIN SUPERVISORS IN THE MAINTENANCE FIELDS
- SYSTEM PROBLEMS
 - TRAINING NEITHER LINKED TO PROMOTION NOR INFLUENCED BY ASSIGNMENT
 - SOLDIERS WHO NEED THE TRAINING ARE NOT NECESSARILY TRAINED

- TD EFFORT IN EARLY STAGES:
 - MUST APPLY TRADOC POLICY FOR DEVELOPMENT OF ENLISTED TNG (TRADOC CIR 351-10)
 - MUST APPLY RESULTS OF CURRENT ETS EFFORT
- "SYSTEMS PROBLEMS" POSE GREATER CONCERN--THEY REPRESENT A CONTINUOUS DRAG ON UNIT READINESS (SEE FOLLOWING VU-GRAPH)
 - (E.G., SKILLS NOT APPLIED TO JOBS FOR WHICH DETERMINED (VIA JOB/TASK ANALYSIS) NECESSARY)
- THERE IS AN ARMY NEED TO FORMALIZE NCOES

RESULTS

- TOO FEW KEY LEADER/SUPERVISOR POSITIONS OCCUPIED BY GRADUATES OF NCOES COURSES
- TOO FEW NCO TRAINERS
- TRAINING NOT DECENTRALIZED
- TRAINING NOT INDIVIDUALIZED
- WITHOUT TRAINED SUPERVISORS, JOB PROFICIENCY OF SKILL LEVEL 1 (E1-E4) SOLDIERS NOT MAINTAINED
- LOW SQT SCORES FOR NCO
- LOW SQT SCORES FOR SOLDIERS
- LACK OF INDIVIDUAL JOB PROFICIENCY UNDERMINES UNIT READINESS

SELF-EXPLANATORY

POLICY DIRECTION TO FORMALIZE NCOES

- PROMOTION BASED ON PERFORMANCE AND CDR'S RECOMMENDATION; SQT SCORE OF 80 TO BE RETAINED AS A STATED OBJECTIVE
- FORMAL TRAINING, WHENEVER NECESSARY, FOLLOWS SELECTION FOR PROMOTION AND PRECEDES JOB USE AT NEXT HIGHER SKILL LEVEL
- NCOES ON TDY AND RETURN BASIS, SO LOSING CDR IS BENEFITING CDR
- FORMAL COURSES NOT LOCALLY AVAILABLE (PTC, BTC, ANCOC, SNCOC) CENTRALLY DIRECTED BY DA (SCHEDULED WITHIN ONE YEAR)
- NCOA-ADMINISTERED COURSES (PLC, PNCOC, BNCOC) CONTINUE WITH DECENTRALIZED SELECTION, BUT UNDER SPECIFIC POLICY ESTABLISHED BY DA

-- VU-GRAPH SHOWS KEY POINTS OF CH 5 (NCOES) REVISION--NOW IN DA/MACOM STAFFING

NCOES/EPMS

NOW (CH 5, AR 351-1)

- PROMOTION ELIGIBILITY TIED TO TWO GATES (AR 614-200).
 1. NCOES COURSE COMPLETION/OJE WAIVER
 2. SQT QUAL SCORE (80)/SQT WAIVER
- FIELD CDR NOT PRINCIPAL USER OF TRAINED NCO ASSIGNED TO HIS UNIT--TNG TARGETED ON JOB 3-4 YEARS AHEAD
- PROMOTION TO E4 (LOCAL) AND TO E5-E6 (SEMI-CENTRALIZED) HEAVILY INFLUENCED BY SQT (150 PTS)

AS REVISED (CH 5, AR 351-1)

PROMOTION ELIGIBILITY BASED ON PERFORMANCE (EER/CDR RECOMMENDATION)

FIELD CDR PRINCIPAL USER OF TRAINED NCO ASSIGNED TO HIS UNIT--TNG TIED TO ASSIGNMENT

NO CHANGE



POLICY DIRECTION TO FORMALIZE NCOES

- PROMOTION BASED ON PERFORMANCE AND CDR'S RECOMMENDATION; SQT SCORE OF 80 TO BE RETAINED AS A STATED OBJECTIVE
- FORMAL TRAINING, WHENEVER NECESSARY, FOLLOWS SELECTION FOR PROMOTION AND PRECEDES JOB USE AT NEXT HIGHER SKILL LEVEL
- NCOES ON TDY AND RETURN BASIS, SO LOSING CDR IS BENEFITING CDR
- FORMAL COURSES NOT LOCALLY AVAILABLE (PTC, BTC, ANCOC, SNCOC) CENTRALLY DIRECTED BY DA (SCHEDULED WITHIN ONE YEAR)
- NCOA-ADMINISTERED COURSES (PLC, PNCOC, BNCOC) CONTINUE WITH DECENTRALIZED SELECTION, BUT UNDER SPECIFIC POLICY ESTABLISHED BY DA

NOW (CH 5, AR 351-1)

- ARMY TRAINS NCO AVAILABLE
- NO ARMY NCOES TRAINING PRIORITIES
- CDRS NOT COMPELLED TO PROVIDE NCO TO RESIDENT TRAINING (FY 79 PTC = .55% SHORTFALL; FY 79 BTC = .66% SHORTFALL)
- TNG \$ DO NOT PRODUCE TRAINED NCO WORKING IN JOB FOR WHICH TRAINED

AS REVISED (CH 5, AR 351-1)

TRAIN BEST QUALIFIED/NCO WHO OCCUPY KEY JOBS

ESTABLISHES ARMY TRAINING PRIORITIES

- PROMOTION LISTED NCO
- NCO IN JOB

DA SCHEDULES RESIDENT TNG (CONTROLLING FUNDS)

TRAINED NCO WORKS IN JOB FOR WHICH TRAINED



POLICY DIRECTION TO FORMALIZE NCOES

- PROMOTION BASED ON PERFORMANCE AND CDR'S RECOMMENDATION; SQT SCORE OF 80 TO BE RETAINED AS A STATED OBJECTIVE
- FORMAL TRAINING, WHENEVER NECESSARY, FOLLOWS SELECTION FOR PROMOTION AND PRECEDES JOB USE AT NEXT HIGHER SKILL LEVEL
- NCOES ON TDY AND RETURN BASIS, SO LOSING CDR IS BENEFITING CDR
- FORMAL COURSES NOT LOCALLY AVAILABLE (PTC, BTC, ANCOC, SNCOC) CENTRALLY DIRECTED BY DA (SCHEDULED WITHIN ONE YEAR)
- NCOA-ADMINISTERED COURSES (PLC, PNCOC, BNCOC) CONTINUE WITH DECENTRALIZED SELECTION, BUT UNDER SPECIFIC POLICY ESTABLISHED BY DA

POLICY WILL:

- ALLEVIATE SYSTEMS PROBLEMS
- CORRECT SERIOUS UNDERATTENDANCE
- PROVIDE EFFECTIVE, COST EFFICIENT FRAMEWORK FOR TD EFFORT

CURRENT STATUS: (AR 351-1)

DA/MACOM STAFFING W/31 AUG SUSPENSE TO DA DCSOPS (MG SMITH)

NEXT: (AR 350-1)

- BEING STAFFED W/MACOM - TRADOC INPUT INSURES ALL TRAINING POLICY DOCUMENTS ARE IN SYNCH.

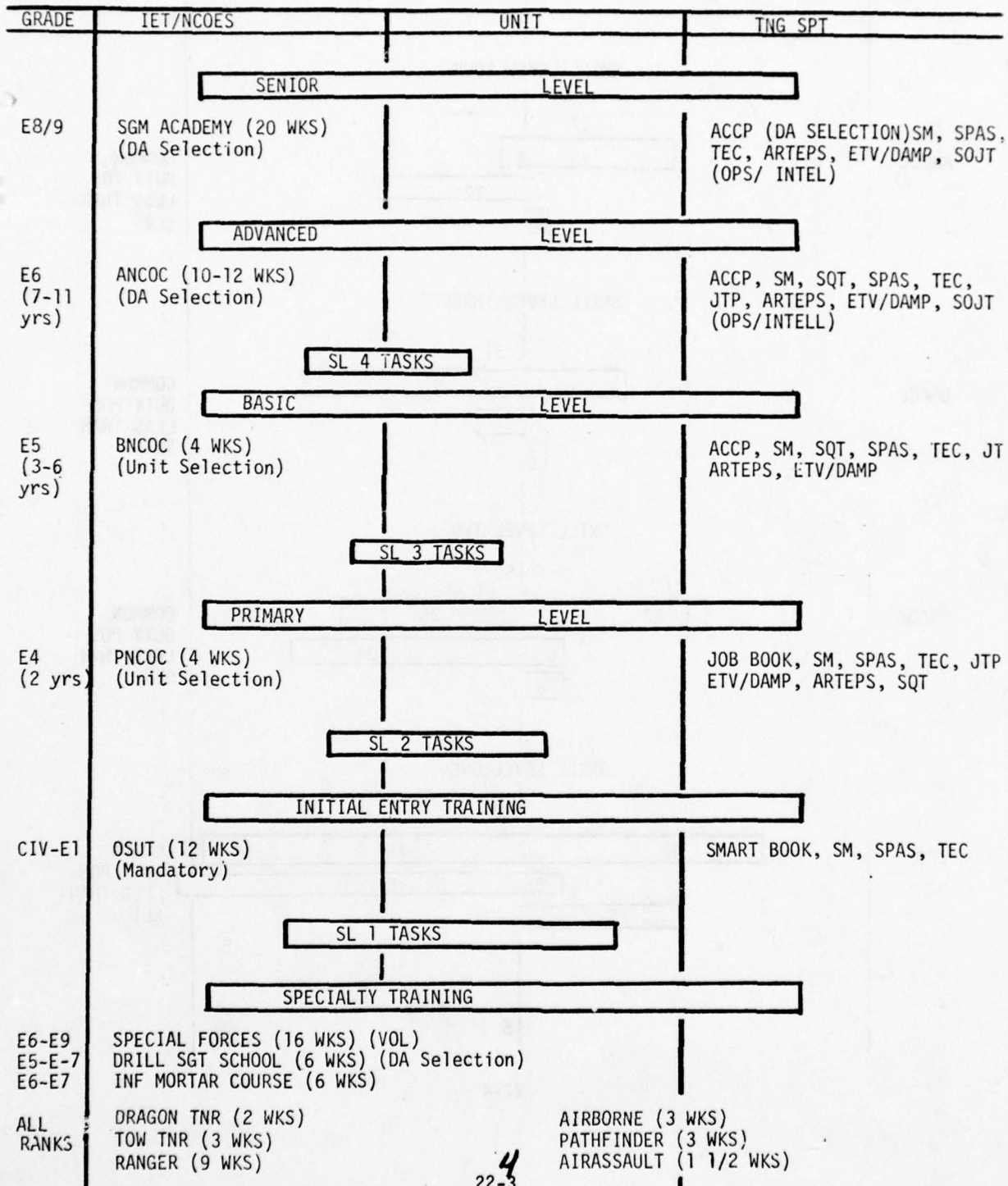
ANALYSIS
AND
THE
ENLISTED
TRAINING
STRATEGY

Incl 32

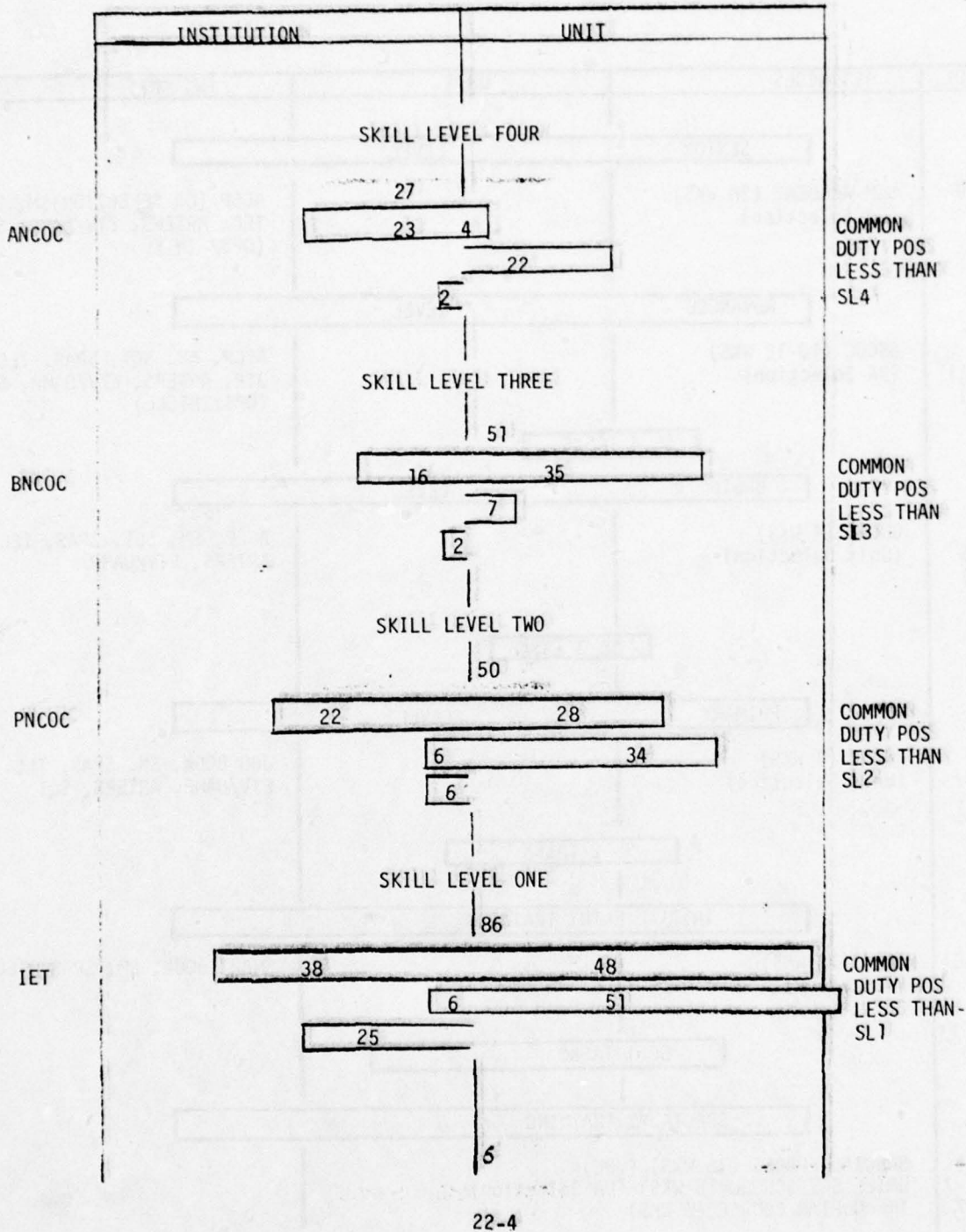
COMMANDANT'S-TRAINING
STRATEGY

CRITICAL TASK LIST
SITE SELECTION

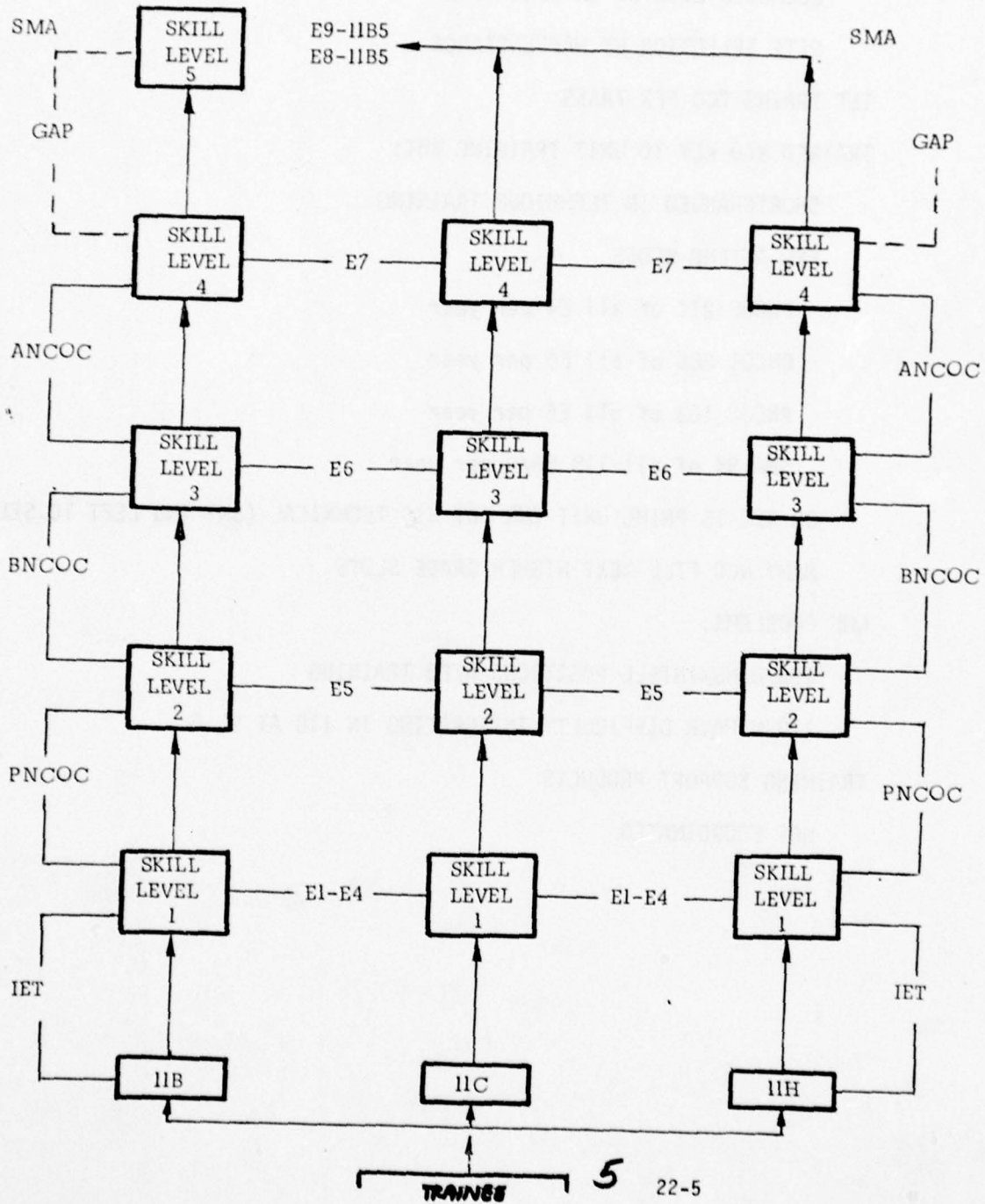
PRESENT STRATEGY



11B MOS CRITICAL SKILLS TRAINING



INFANTRYMAN'S CAREER PROGRESSION UNDER EPMS



SHORT FALLS IN STRATEGY

ENLISTED TRAINING STRATEGY NEVER PREVIOUSLY ARTICULATED.

ELEMENTS EVOLVED IN ISOLATION

SITE SELECTION BY HAPPENSTANCE

IET TRAINS TOO FEW TASKS

TRAINED NCO KEY TO UNIT TRAINING BUT:

SHORTCHANGED IN TECHNIQUE TRAINING

FEW ATTEND NCOES

PNCOC 21% of all E4 per year

BNCOC 28% of all E5 per year

ANCOC 10% of all E6 per year

SMA 3% of all 11B E8/9 per year

JR NCO IS PRIME UNIT TNR BUT HIS TECHNICAL (SM) TNG LEFT TO SELF/UNIT

MANY NCO FILL NEXT HIGHER GRADE SLOTS

CMF PROBLEMS:

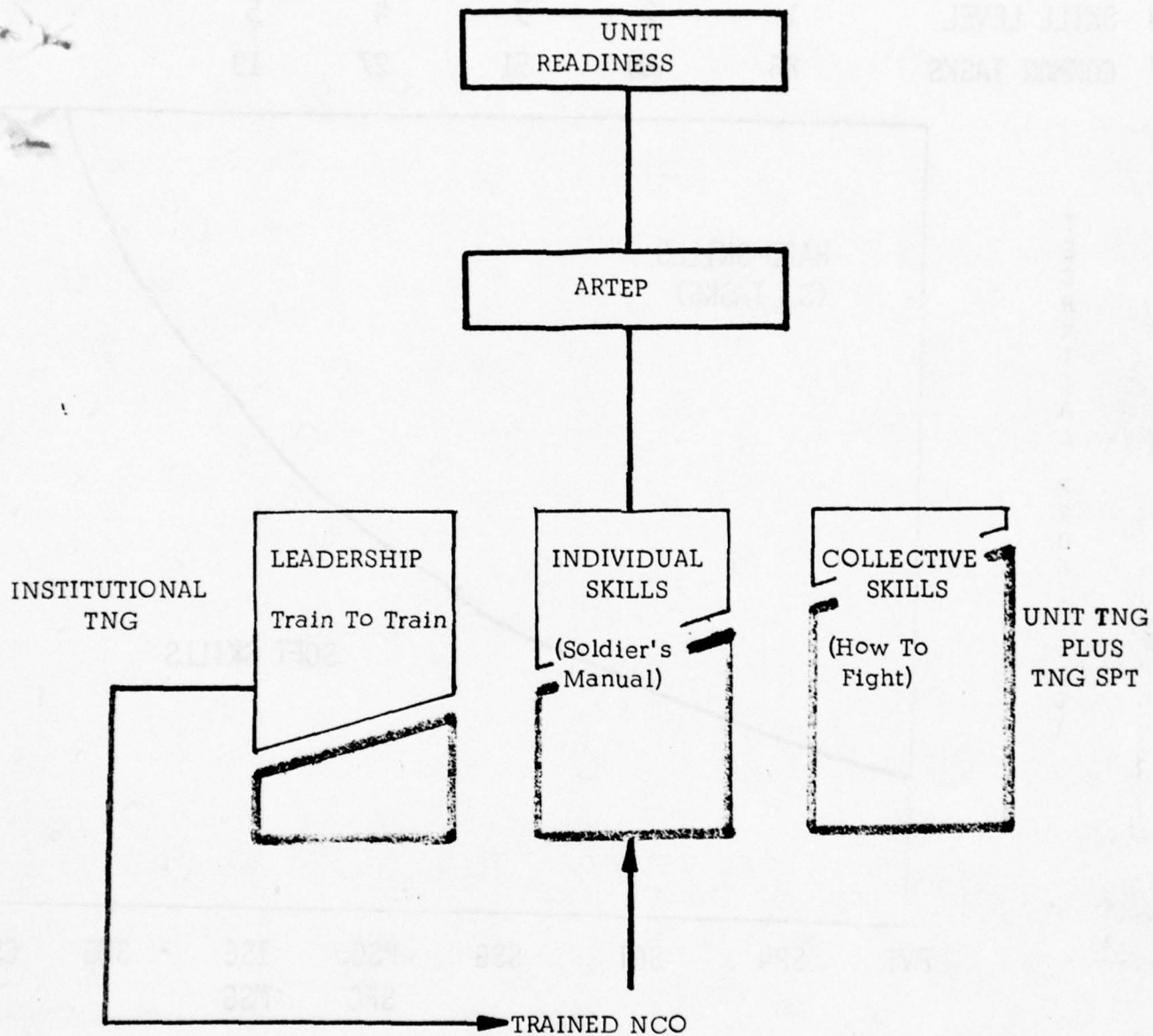
1SG/OPNS/INTELL POSITIONS NEED TRAINING

11C/H HAVE DIFFICULTY INTEGRATING IN 11B AT SL 5

TRAINING SUPPORT PRODUCTS

NOT COORDINATED

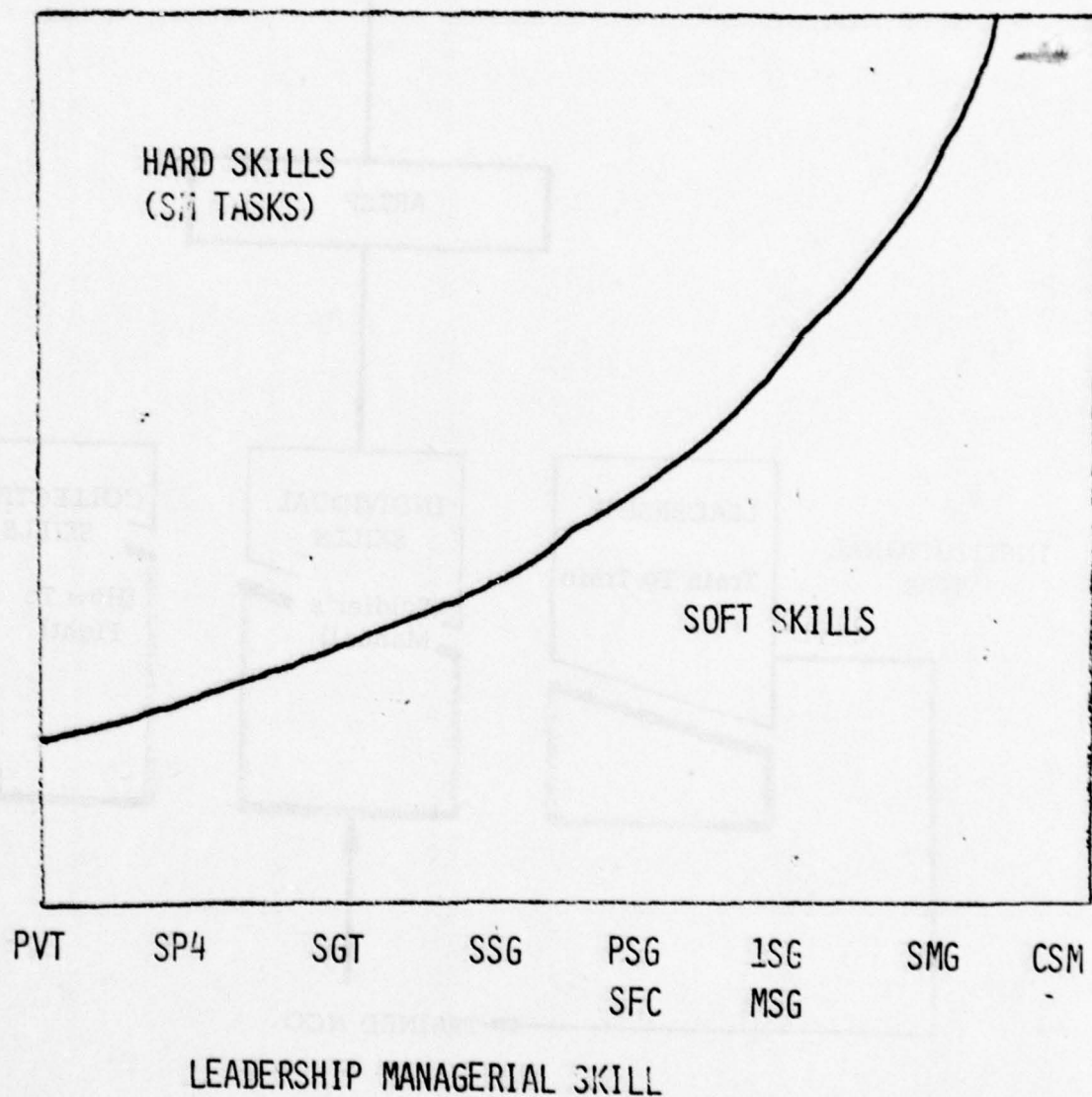
USAIS APPROACH



HARD SKILL/SOFT SKILL RELATIONSHIP

SKILL LEVEL	1	2	3	4	5
COMMON TASKS	86	50	51	27	19

TECHNICAL PROFICIENCY



SITE SELECTION BOARD RESULTS MOS 11B

	PRESENT	1979	1982
<u>SKILL LEVEL 1</u>	<u>INST/UNIT</u>	<u>INST/UNIT</u>	<u>INST/UNIT</u>
COMMON	44%/56%	73%/27%	86%/14%
TOTAL	29%/71%	52%/48%	53%/47%
<u>SKILL LEVEL 2</u>			
COMMON	44%/56%	37%/63%	52%/48%
TOTAL	31%/69%	41%/59%	40%/60%
<u>SKILL LEVEL 3</u>			
COMMON	31%/69%	76%/24%	96%/4%
TOTAL	28%/72%	74%/26%	85%/15%
<u>SKILL LEVEL 4</u>			
COMMON	35%/15%	81%/19%	100%/0%
TOTAL	47%/53%	67%/33%	86%/14%

STATE SELECTION BOARD RESULTS FOR 1982

1982	1979	PRESENT	SKILL LEVEL 1
INSTANT	INSTANT	INSTANT	COMMON
402/502	402/502	402/502	TOTAL
522/402	522/402	522/402	
			SKILL LEVEL 2
402/502	402/502	402/502	COMMON
402/502	402/502	402/502	TOTAL
			SKILL LEVEL 3
402/502	402/502	402/502	COMMON
402/502	402/502	402/502	TOTAL
			SKILL LEVEL 4
402/502	402/502	402/502	COMMON
402/502	402/502	402/502	TOTAL

FIELD SURVEYS
AND
INTERVIEWS

ENLISTED TRAINING STRATEGY FOR CMF 11

BY

MG DAVID E. GRANGE, JR.

COMMANDANT, UNITED STATES ARMY INFANTRY SCHOOL

(SLIDE # 1-ETS CMF 11)

THE INFANTRY SCHOOL IS DEDICATED TO DEVELOPING THE WORLD'S BEST TRAINED INFANTRY SOLDIER - ONE WHO CAN FIGHT AND WIN. TO DO THIS WE MUST FIRST LOOK AT THE TRAINING REQUIREMENT TO DETERMINE WHETHER OUR TRAINING IS IN FACT MEETING THE NEED. ALL OUR TRAINING ULTIMATELY IMPACTS ON UNITS IN THE FIELD AND WE MUST REALIZE THAT OUR MISSION IS TO SUPPORT THEM.

IT IS ONLY LOGICAL TO ASSUME THAT WHAT WE DO IN THE INSTITUTION MUST BE SUPPORTIVE OF THE UNITS IN THE FIELD. THERE WOULD BE

(SLIDE # 2 - USAIS STRATEGY)

LITTLE ARGUMENT IN CONSIDERING THAT THE ULTIMATE GOAL OF ANY UNIT IS COMBAT READINESS. SINCE THE CURRENT MEASURE OF THAT READINESS IS THE ARTEP, THEN IT WOULD FOLLOW THAT ALL WE DO MUST SUPPORT THE ARTEP. THERE ARE THREE PRINCIPLE INGREDIENTS: LEADERSHIP, INDIVIDUAL SKILLS AND COLLECTIVE SKILLS. THE RESPONSIBILITY FOR TRAINING THESE SKILLS IS SHARED BY THE INSTITUTIONS AND UNITS BUT THERE ARE SOME THINGS THAT EACH OF US CAN DO BETTER, AT THE

SCHOOLS WE ARE BETTER EQUIPPED TO CONCENTRATE ON FORMAL LEADERSHIP TRAINING AND WE CAN BEST CONDUCT THE INITIAL TRAINING OF MOST OF THE NEEDED INDIVIDUAL SKILLS WHILE THE UNITS BETTER HANDLE COLLECTIVE TRAINING AND MANY OF THE DUTY POSITION PECULIAR INDIVIDUAL SKILLS. THE END RESULT OF OUR TRAINING IS TO PRODUCE A TRAINED SOLDIER OR NCO WHO IS PREPARED TO FIGHT IMMEDIATELY UPON JOINING HIS UNIT IN WAR OR HELP HIS UNIT TRAIN IN PEACETIME. ADD TO THIS THE TRAINING SUPPORT THAT WE PROVIDE THE UNIT AND HIS ROLE IS FURTHER STRENGTHENED. IN SHORT, EVERYTHING THAT WE DO SHOULD BE ARTEP SUPPORTIVE, WHETHER IT BE THE SOLDIER WE TRAIN IN OSUT, THE TRAINER WHO GRADUATES FROM NCOES, OR THE EXPORTABLE PRODUCTS WE SEND TO THE FIELD TO SUPPORT UNIT TRAINING. EXACTLY WHAT KIND OF A GRADUATE DO WE WANT TO PRODUCE FROM OUR COURSES? IF WE LOOK AT THE WORLD OF THE PRIVATE BEING COMPOSED OF

(SLIDE # 3 - HARD/SOFT SKILL RELATIONSHIP)

PRIMARILY THE HARD (I.E., SOLDIER'S MANUAL) SKILLS AND THAT OF THE CSM CONTAINING LITTLE, IF ANY, SUCH SKILLS BUT PRIMARILY THE SOFTER (LEADERSHIP/MANAGEMENT) SKILLS, THEN WE HAVE A RELATIONSHIP THAT LOOKS SOMETHING LIKE THIS: THE LOWER THE RANK, THE MORE HARD SKILL PROFICIENCY IS NEEDED TO DO THE JOB; THE HIGHER THE RANK, THE MORE LEADERSHIP IS USED. OUR TRAINING THEN, SHOULD PARALLEL THIS PHILOSOPHY AND PLACE A GREATER EMPHASIS ON HARD SKILL TRAINING AT THE LOWER RANKS.

IN THE AREA OF TRAINING SUPPORT, OUR PRIMARY EFFORT SHOULD BE DIRECTED TOWARD THOSE AREAS THAT ARE NOT TRAINED IN THE INSTITUTION BUT ARE INITIALLY TRAINED IN THE UNITS IN SUPPORT OF THEIR ARTEP MISSIONS. WE WILL CONTINUE TO PRODUCE PRODUCTS THAT REFRESH AND REINFORCE WHAT WE TRAIN IN THE INSTITUTION BUT THIS WILL BE OUR SECONDARY EFFORT. FOR EXAMPLE, MOST DUTY POSITION PECULIAR TRAINING SUCH AS THAT FOR MECHANIZED CARRIER TEAM LEADERS OR FOR RADIO OPERATORS IS LEFT TO THE UNITS TO CONDUCT; WE WILL FOCUS OUR EXPORTABLES TO SUPPORT THESE AREAS. COMMON TASK SUBJECTS LIKE M16 RIFLE AND HAND GRENADES THAT WE TRAIN IN OSUT WILL BE DEVELOPED AS REVIEW OR REFRESHER TRAINING. WITH THIS AS OUR STRATEGY FOR TRAINING INFANTRYMEN, LET'S TAKE A LOOK AT WHAT WE ARE DOING NOW AND HOW WE STACK UP AGAINST IT.

(SLIDE # 4 - PRESENT SYSTEM)

FIRST, HERE'S OUR PRESENT SYSTEM. THIS SHOWS THE TRAINING AVAILABLE FOR CMF 11 SOLDIERS FROM RECRUIT TO SGM. THE RELATIONSHIP OF INSTITUTION TO UNIT TRAINING IS SHOWN BY THE BAR GRAPH DEPICTING THE SOLDIER'S MANUAL SKILLS TAUGHT IN THE INSTITUTION - THOSE SKILL

LEVEL TASKS UNDER THE IET/NCOES CATEGORY - VERSUS WHAT IS LEFT TO THE UNITS TO INITIALLY TRAIN - THAT PART OF THE BAR UNDER THE UNIT HEADING. UNDER THE TRAINING SUPPORT COLUMN, VARIOUS EXPORTABLES ARE LISTED FOR EACH LEVEL. THE SPECIALTY COURSES LISTED AT THE BOTTOM ROUND OUT THE SYSTEM. ONE THING THAT IS IMMEDIATELY ALARMING IS THE HIGH PERCENTAGE OF CRITICAL (SOLDIER'S MANUAL) TASKS LEFT FOR THE UNITS TO TRAIN. WE'LL TALK ABOUT THIS IN GREATER DETAIL LATER.

NEXT, LET'S ADD EPMS TO THE TRAINING PLAN. AS SHOWN ON THE

(SLIDE # 5 - EPMS)

PREVIOUS SLIDE, NEITHER IET NOR NCOES QUALIFIES A SOLDIER FOR A SKILL LEVEL BUT ONLY SERVES AS A TRANSITION. SKILL LEVEL FIVE GLARINGLY LACKS EVEN THIS TRANSITION. THOSE FEW WHO ATTEND THE SERGEANT MAJOR ACADEMY ARE ALREADY SKILL LEVEL FIVE. THE 11C AND 11H MOS BOTH MERGE WITH THE 11B MOS AT SKILL LEVEL FIVE.

NOW, LET'S EVALUATE WHAT WE HAVE IN COMPARISON TO OUR

(SLIDE # 6 - FINDINGS)

ARTICULATED STRATEGY. FIRST, WE CHECKED TO SEE WHETHER OUR SOLDIER'S MANUALS FULLY SUPPORT THE ARTEP. WHILE WE FOUND THAT WE COULD MAKE

A BETTER MATCH-UP BETWEEN THE TWO, GENERALLY, SOLDIERS WHO WERE TRAINED IN THE SOLDIER'S MANUAL SKILLS MAKE UNITS WHICH PERFORM WELL ON THE ARTEP.

SITE SELECTION:

NEXT, USING OUR 11B MOS AS AN EXAMPLE, WE FOUND THAT NOT AS MANY OF THE CRITICAL SOLDIER'S MANUAL SKILLS WERE TAUGHT IN THE

(SLIDE # 7 - 11B CRITICAL SKILLS)

INSTITUTION AS SHOULD BE. THE VARIOUS COURSE POI WERE DEVELOPED PRIOR TO THE FRUITION OF THE ISD PROCESS, THE PRESENT UNIT TRAINING ENVIRONMENT WAS NOT ACCURATELY PREDICTED, AND AN UNACCEPTABLY HIGH PERCENTAGE OF INDIVIDUAL TRAINING WAS LEFT TO THE UNITS TO ACCOMPLISH. FURTHERMORE, DUE TO LOW ENTRY LEVELS AT NCOES COURSES SOME TASKS, SUCH AS THOSE ON THE LAW AND CLAYMORE MINE, ARE REPEATED FROM IET THROUGH ANCOC. LET ME EXPLAIN THIS. WE ARE COMMITTED TO REINITIATING THE EVALUATION OF ANCOC STUDENTS UPON ENTRY AS WE SUSPECT THAT AS THE SQT TEMPO IN THE FIELD INCREASES, REQUIREMENTS FOR RETRAINING LOWER LEVEL SKILLS IN THE INSTITUTION WILL BE REDUCED.

(SLIDE # 8 - SITE SELECTION RESULTS)

A RECENT SITE SELECTION BOARD, HOWEVER, EVALUATED THE ENTIRE MOS ON A TASK BY TASK BASIS AND RECOMMENDED A DIFFERENT DISTRIBUTION OF

RESPONSIBILITY BETWEEN INSTITUTION AND UNIT. THE BOARD WAS TASKED WITH RECOMMENDING THE BEST TRAINING SITE FOR EACH TASK AND WAS NOT CONSTRAINED BY RESOURCE CONSIDERATIONS. HOW MUCH WE CAN ACTUALLY IMPLEMENT BASED ON THE AVAILABILITY OF ASSETS IS CURRENTLY UNDER EVALUATION. BUT, THE MAIN POINT IS THAT MANY MORE TASKS - ESPECIALLY THE COMMON CORE TASKS - SHOULD BE INITIALLY TRAINED IN THE INSTITUTION.

A DETAILED LOOK AT OUR INSTITUTIONAL COURSES AND TRAINING SUPPORT RESULTED IN THE FOLLOWING FINDINGS:

INITIAL ENTRY TRAINING

WHILE ONLY 38 OUT OF 86 REQUIRED COMMON CORE TASKS ARE TRAINED TO SKILL LEVEL ONE PROFICIENCY, THE BURDEN ON UNIT TRAINING IS SOMEWHAT LESSENERED BY THE FACT THAT 25 OTHER TASKS ARE TAUGHT - BUT TO LESS THAN SKILL LEVEL ONE STANDARDS - MAKING SUBSEQUENT UNIT TRAINING EASIER.

WE CONTEND THAT THE TRAINED NCO IS THE KEY TO UNIT TRAINING. LET'S LOOK AT HOW WE ARE IN FACT TRAINING HIM.

PNCOC

TWENTY-TWO OUT OF 50 COMMON TASKS FOR SKILL LEVEL TWO ARE TRAINED IN PNCOC. THE CURRENT EMPHASIS IS ON LEADERSHIP TRAINING. HOWEVER, OUR EARLIER COMPARISON OF HARD VERSUS SOFT SKILLS CONCLUDED THAT MORE TECHNICAL PROFICIENCY THAN LEADERSHIP TRAINING IS NEEDED FOR THE LOWER ENLISTED GRADES. THEREFORE, IT SEEMS THAT AS NOW STRUCTURED, PNCOC GIVES THE YOUNG NCO THE FORM IN HOW TO LEAD

AND HOW TO TRAIN BUT DOES NOT PROVIDE ENOUGH SUBSTANCE, I.E., TECHNICAL PROFICIENCY.

BNCOC

16 OUT OF 51 COMMON SKILLS ARE TRAINED IN BNCOC. THE AMOUNT OF DUTY POSITION SPECIFIC TASKS TAUGHT VARY IN ACCORDANCE WITH LOCAL COMMANDER'S DESIRES. LOWER SKILL LEVEL TASKS AND NON-SOLDIER'S MANUAL TASKS ARE BEING TAUGHT AT THE EXPENSE OF THE SKILL LEVEL THREE CRITICAL SKILLS.

ANCOC

THE MOST TECHNICAL TRAINING OF ALL THE COURSES IS DONE AT ANCOC. 23 OUT OF 27 COMMON SKILL LEVEL FOUR TASKS ARE TRAINED AS WELL AS REVIEWING MANY (93) SKILL LEVEL ONE THROUGH THREE TASKS. WHILE THE COURSE IS DESIGNED TO PREPARE AN NCO TO BE A PLATOON SERGEANT, 91% OF THE ATTENDEES CLAIM TO HAVE HAD THAT JOB AT SOME TIME PRIOR TO ATTENDANCE, AND ONLY 28% RETURN TO THAT JOB AFTER ANCOC. TOO MUCH TRAINING, TOO LATE. WE NEED A BETTER WAY TO MATCH THE TRAINING WITH THOSE WHO WILL DO THE JOB.

SERGEANT MAJOR ACADEMY

MY PERCEPTION IS THAT IF AN NCO IS A TRAINER AND THE NAME OF THE GAME IS TO TRAIN TRAINERS, THEN THE MAIN ROLE OF THE SERGEANT MAJOR IS THE DEAN OF TRAINERS. MILPERCEN SHOULD MAKE A DETERMINED EFFORT TO GEAR THEIR SELECTIONS MORE TOWARD SENIOR E-8'S AND HAVE THEM ATTEND THE SERGEANT MAJOR ACADEMY EARLY. THESE GRADUATES MUST THEN REPORT IMMEDIATELY TO OUR UNITS IN THE FIELD.

SNCOC

A GAP EXISTS AT THE SENIOR LEVEL. A COURSE DOES NOT EXIST TO TRAIN THE SKILL LEVEL FOUR SOLDIER TO BECOME A SKILL LEVEL FIVE. THE TWO MAJOR JOBS AT THAT LEVEL ARE FIRST SERGEANT AND OPERATIONS/INTELLIGENCE SERGEANT - BOTH ABOUT EQUALLY DISTRIBUTED AT 39% OF THE SKILL LEVEL. BOTH JOBS REQUIRE SPECIFIC TRAINING. WHILE THERE ARE A FEW LOCAL ISG COURSES BEING CONDUCTED, UNITS IN THE FIELD SUPPORT OUR CONTENTION THAT THERE IS A NEED FOR A FORMAL ISG COURSE, AS WELL AS OPERATIONS/INTELLIGENCE TRAINING.

NCOES ATTENDANCE

WHAT IS MOST ALARMING IS THE NUMBER WHO ACTUALLY ATTEND NCOES. AS YOU CAN SEE IT IS PITIFULLY SMALL. THIS PROBLEM IS FURTHER COMPOUNDED BY THE FACT THAT SINCE IT WAS NOT TAUGHT IN THE INSTITUTION MOST OF THE JR. NCO'S TECHNICAL (SOLDIER'S MANUAL) TRAINING IS LEFT TO EITHER THE INDIVIDUAL OR THE UNIT. ADD TO THIS THE FACT THAT MANY NCO'S FILL POSITIONS CALLING FOR AT LEAST ONE HIGHER GRADE THAN THEY HOLD. AND THEN WE SAY THAT THE JR. NCO IS THE PRIME UNIT TRAINER. WE CHARGE THE NCO WITH THE JOB OF TRAINING, BUT WE DO NOT PROVIDE HIM WITH THE TOOLS OF THE TRADE.

SPECIALTY COURSES

WHILE THE INFANTRY MORTAR COURSE AND THE TOW TRAINER COURSE DUPLICATE MUCH OF THE ANCOC POI, THERE IS STILL A STRONG NEED FOR THESE COURSES. THEY PROVIDE A RESPONSIVE OPTION FOR COMMANDERS OF OPERATIONAL UNITS

TO SEND SOLDIERS OF THEIR CHOICE, NOT NECESSARILY THOSE SELECTED BY MILPERCEN FOR ANCOC ATTENDANCE, TO BECOME THE WEAPONS SYSTEM EXPERTS WHO ARE DESPERATELY NEEDED RIGHT NOW TO TRAIN OUR SOLDIERS IN THESE CRITICAL SKILLS.

TRAINING SUPPORT

WHILE OUR TRAINING SUPPORT IS VARIED AND VOLUMINOUS, WE ARE STILL NOT SATISFIED. THE INFANTRY SCHOOL IS WORKING HARD TO ASSURE THAT THE PRODUCTS ARE TIMELY, UP-TO-DATE AND SYNCHRONIZED WITH THE REST OF THE TRAINING DEVELOPMENT EFFORT. THERE IS PARTICULARLY A NEED FOR THIS WITH OUR RESERVE COMPONENTS.

ONE AREA THAT NEEDS IMPROVEMENT IS THAT WE HAVE NEITHER TOLD NOR SOLD THE ENTIRE TRAINING SYSTEM TO THE FIELD - ESPECIALLY TO THE NCO. ANCOC IS THE FIRST COURSE WHERE WE REALLY EXPLAIN THE RELATIONSHIP OF SOLDIER'S MANUALS, SQT, ARTEP, TEC, ETC. THIS MUST ALSO BE DONE TO SOME DEGREE IN PNCOC AND BNCOC KEYING ON SOLDIER'S MANUALS, SQT, ARTEP, TEC, JOB BOOKS, REALTRAIN, SPAS, AND JTP.

CMF

WHILE THE 11C AND 11H SOLDIERS MAY HAVE SOME DIFFICULTY MERGING AT SKILL LEVEL FIVE WITH 11B MOS, THIS PROBLEM IS NOT MONUMENTAL. THE MAJOR DIFFICULTY WE SEE IS A NEED TO TRACK OPERATIONS/

(SLIDE # 9 - OPS/INTEL)

INTELLIGENCE NCO. AS CAN BE SEEN FROM THE SLIDE, THE CAREER PROGRESSIC

IS SOMEWHAT MUSHROOM SHAPED. RATHER THAN TRYING TO ARTIFICALLY FLESH OUT THE BASE, BASED ON PRESENT JOBS, THE BEST COURSE SEEMS TO BE TO BEGIN AT SKILL LEVEL FOUR WHERE 26% OF THE 11B4 JOBS ARE NOW OPERATIONS AND INTELLIGENCE SPECIFIC AND THERE IS A REGULAR PROGRESSION FROM THERE.

REMEMBERING THAT OUR STRATEGY IS CENTERED ON BEING PREPARED TO FIGHT AND TO MEASURE THIS READINESS BY THE ARTEP, WE LOOKED AT WAYS TO IMPROVE OUR PRESENT SYSTEM BY BRINGING IT CLOSELY ON LINE WITH OUR STRATEGY. WE FIRST CONSIDERED OUR CAPABILITIES,

(SLIDE #10 - GEN STARRY REQUIREMENT ON CAPABILITIES)

WHAT WE CAN DO WITH WHAT WE HAVE.

(NOTE: PAUSE TO PERMIT READING OF SLIDE # 10)

(SLIDE # 11 - CAPABILITIES)

ARTEP AND SOLDIER'S MANUALS HAVE TO LINE UP BETTER. WE ARE UNDERTAKING A PROJECT TO DEFINE THE ARTEP COLLECTIVE TASKS IN TERMS OF THE INDIVIDUAL TASKS; THIS WILL PROVIDE A READY CROSS-REFERENCE SYSTEM FOR USING UNITS.

OUR NCO COURSES MUST USE ARTEP AND SOLDIER'S MANUAL TERMINOLOGY WHENEVER POSSIBLE. IF "HOW TO FIGHT" SKILLS ARE TAUGHT, THEY MUST IMMEDIATELY BE CONVERTED TO THE APPROPRIATE ARTEP ELEMENTS AND

DISCUSSED IN TERMS OF THE TRAINING AND EVALUATION OUTLINES FOR FIELD CRITIQUES; INDIVIDUAL DISCREPANCIES MUST THEN BE CRITIQUED IN TERMS OF THE APPROPRIATE SOLDIER'S MANUAL TASKS.

WE HAVE ALREADY BEGUN A SITE SELECTION PROCESS THAT HAS GIVEN US A BETTER PERSPECTIVE ON INSTITUTIONAL AND UNIT RESPONSIBILITY. LOOKING AT THE ENTIRE MOS AT ONE TIME INSTEAD OF ON A COURSE BY COURSE BASIS HAS HELPED US TO MINIMIZE INCONSISTENCIES AND AVOID DUPLICATION OF EFFORT.

WE CAN DO BETTER IN PACKAGING OUR EXPORTABLES. JOB TRAINING PACKAGES ARE A STEP IN THE RIGHT DIRECTION, PROVIDING A COMPLETE PICTURE OF THE TRAINING NEEDED FOR A DUTY POSITION. THIS IS VITAL TO THOSE NCO'S WHO ARE NOT AFFORDED THE OPPORTUNITY TO ATTEND NCOES. THE COMMANDER'S MANUAL CONTINUES TO BE MISUNDERSTOOD OR UNUSED; WE CAN SELL IT AND PACKAGE IT BETTER. (ONE WAY MAY BE TO COLOR CODE SOLDIER'S MANUAL PAGES OF THOSE TASKS NOT TAUGHT IN THE INSTITUTION.)

USING THE NEW FM 22-100, HOW TO LEAD, AND THE TASK LISTS AS DEVELOPED AT THE MARCH 1979 TRADOC LEADERSHIP CONFERENCE, WE ARE NOW ABLE TO PROVIDE NCOES WITH A SYSTEM OF LEADERSHIP TRAINING FOR EACH GRADE. THIS WILL NOT ONLY PROVIDE A SYSTEM OF PROGRESSIVE, FORMAL TRAINING BUT WILL SERVE AS A GUIDE FOR THE ONGOING DEVELOPMENT OF LEADERS IN THE UNITS.

(SLIDE # 12 - GEN STARRY REQUIREMENT ON RESOURCES)

(NOTE: PAUSE TO PERMIT READING OF SLIDE # 12)

HOWEVER, THE CRUX OF THE PROBLEM LIES BEYOND OUR ABILITY TO INFLUENCE.

(SLIDE # 13 - RESOURCES NEEDED)

SIMPLY, TOO FEW NCO ATTEND NCOES. MANY MORE COURSES/ALLOCATIONS ARE NEEDED.

WHILE ADDITIONAL TECHNICAL (SOLDIER'S MANUAL) SKILLS CAN BE ADDED TO PNCOC/BNCOC THROUGH A MORE JUDICIOUS MANAGEMENT OF THE POI, A GREATER EFFORT MUST BE MADE TO DEVELOP THE TECHNICAL PROFICIENCY OF THE JUNIOR NCO IN THE UNIT THROUGH AVAILABLE TRAINING SUPPORT.

MILPERCEN ASSISTANCE IS NEEDED TO FULFILL THE ANCOC OBJECTIVE OF TRAINING PLATOON SERGEANTS. ALL - OR EVEN MOST - GRADUATES DO NOT GO DIRECTLY TO PLATOONS AFTER COMPLETING THE COURSE. LET ME STRESS THE MAGNITUDE OF THIS PROBLEM. AS I STATED EARLIER ONLY 10% OF THOSE ELIGIBLE ATTEND ANCOC AND ONLY ONE THIRD OF THESE GRADUATES RETURN DIRECTLY TO A UNIT. WE ARE NOT CAPITALIZING ON OUR TRAINING INVESTMENT; WE NEED AN IMMEDIATE IMPACT ON UNIT PROFICIENCY. WHAT WE HAVE NOW IS A WASTE.

A SKILL LEVEL FIVE ISG COURSE CAN BE ESTABLISHED AT THE INFANTRY SCHOOL BUT A BETTER SOLUTION WOULD BE TO ESTABLISH A COURSE AT LOCAL NCO ACADEMIES TO PERMIT SOME TAILORING FOR LOCAL REQUIREMENTS. WE STAND READY TO ASSIST IN DEVELOPING AN EXPORTABLE COURSE.

AS A MATTER OF INTEREST, WE CONDUCTED A RECENT SURVEY AND DISCOVERED THAT INFANTRY DIVISIONS AND SEPARATE BRIGADES ARE SERVED BY FIVE STATESIDE AND THREE OVERSEAS LOCALLY ESTABLISHED ISG COURSES THAT RANGE FROM 3 DAYS TO 4 WEEKS IN DURATION. FIELD SUPPORT FOR INSTITUTING A FORMAL ISG COURSE IS OVERWHELMING.

(SLIDE # 14 - GEN STARRY RESTRUCTURE CMF
REQUIREMENT)

(NOTE: PAUSE TO PERMIT READING OF SLIDE 14)

(SLIDE # 15 - RESTRUCTURE CMF)

THE OPERATIONS/INTELLIGENCE NCO TRAINING GAP CAN BE CLOSED TO SOME DEGREE BY REINSTITUTING THE 11F MOS COMMENCING AT SKILL LEVEL FOUR IF MILPERCEN CAN IDENTIFY E-6'S FOR CONVERSION TO MOS 11F WHEN THEY SCREEN RECORDS FOR ANCOC SELECTION, THEN TRAINING CAN BEGIN WITH AN OPERATIONS/INTELLIGENCE TRACK ADDED TO THE ADVANCE COURSE. WE STILL WANT TO MAINTAIN THE PLATOON SERGEANT ORIENTATION OF ANCOC; AFTER THE STUDY OF CMF 11 COMMON SKILLS, THE 11B, 11C AND 11H SOLDIERS WILL SEPARATE FOR SPECIALIZED TRAINING TO MAKE THEM PLATOON WEAPONS SYSTEM/EQUIPMENT EXPERTS WHILE THE 11F TRACK BEGINS THE STUDY OF THAT SPECIALTY. A 15% INCREASE IN OUR ANCOC CAPACITY WILL ACCOMODATE THE 11F MOS ADDITION AND MAINTAIN THE RATIO OF CMF 11 PLATOON SERGEANTS TO OPERATIONS/INTELLIGENCE SERGEANTS NEEDED BY UNITS IN THE FIELD.

A PROVISION FOR 11F SKILL LEVEL FIVE TRAINING MUST ALSO BE MADE IN EITHER THE FORM OF AN EXPORTABLE COURSE, TAUGHT BY A FIELD INSTITUTION, OR A JOB TRAINING PACKAGE, OR AN ON-THE-JOB TRAINING PROGRAM THAT REFLECTS ISD DEVELOPMENT OF THE MOS.

WITH THE DEVELOPMENT OF THE INFANTRY FIGHTING VEHICLE, WE RECOGNIZE THE REQUIREMENT TO ESTABLISH THE 11M MOS THROUGH SKILL LEVEL TWO BECAUSE WE NEED DRIVERS AND GUNNERS FOR THAT SYSTEM. WE ARE EXAMINING THE POSSIBILITY OF TRACKING THE 11M MOS THROUGH SKILL LEVEL FOUR USING THE ARMY'S EXPERIENCE GAINED BY THE ARMOR COMMUNITY AND THE RESULTS OF THE TANK FORCES MANAGEMENT GROUP STUDY UNDER LTG KALERGIS. I BELIEVE THAT WE MUST ALSO DEVELOP A MASTER GUNNER'S PROGRAM. HOWEVER, THESE MATTERS WILL BECOME CLEARER WITH THE COMPLETION OF OPERATIONAL TESTING OF THE IFV.

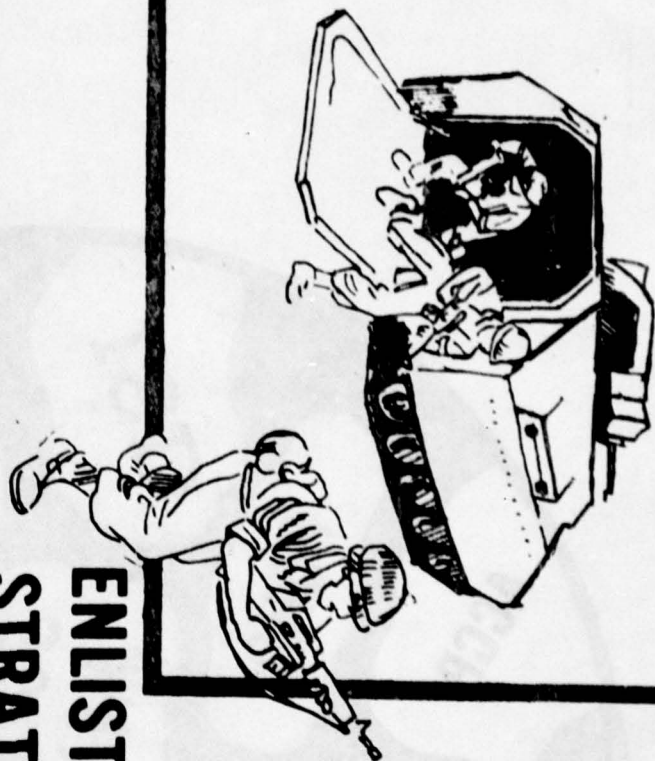
(SLIDE # 16 - RESTRUCTURED CMF)

BASICALLY, USAIS DOES NOT THINK THAT THE MIX BETWEEN IET, NCOES,

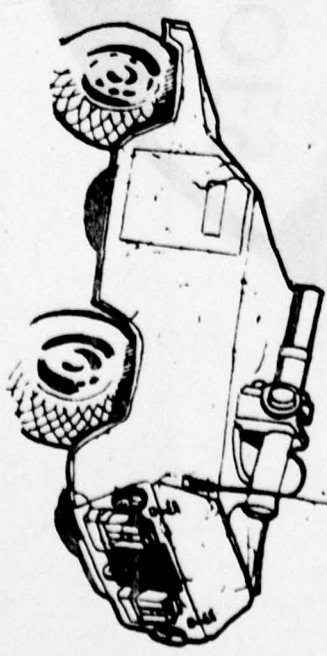
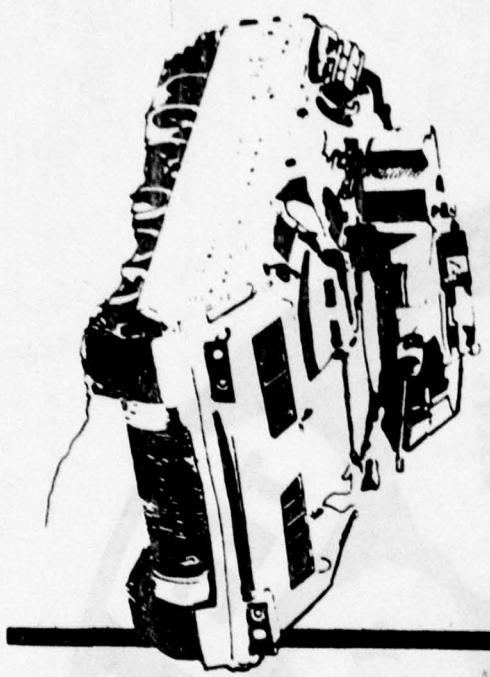
(SLIDE # 17 - SUMMARY)

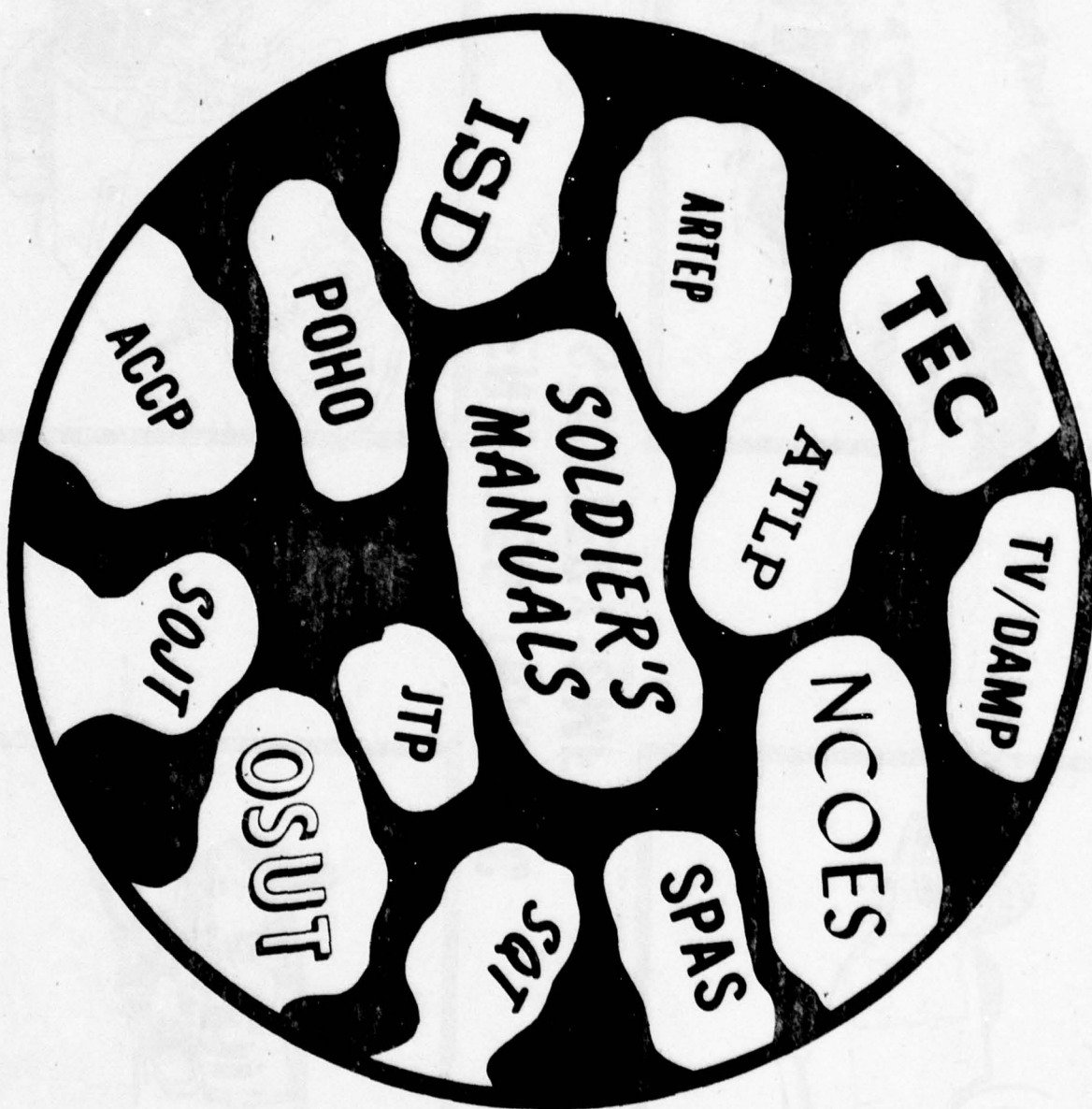
AND TRAINING SUPPORT IS TOO MUCH OFF THE MARK. CHANGES COULD BE MADE TO IMPROVE IT. MUCH OF WHAT SHOULD BE DONE IS WITHIN OUR PRESENT CAPABILITY AND IS CURRENTLY BEING ACCOMPLISHED. WHAT WILL MAKE THE MAJOR DIFFERENCE TO UNITS IS TO INCREASE THE CAPACITY OF NCOES TO MAKE IT AVAILABLE TO MORE NCO'S.

IF WE MUST STILL OPERATE AT OUR PRESENT CAPACITY, MILPERCEN MUST GET MORE INVOLVED IN THE PICTURE TO ASSURE THAT THE NCO SELECTED TO RECEIVE THE TRAINING IS TRAINED ENROUTE TO THE POSITION THAT REQUIRES THAT TRAINING. IF WE DON'T TRAIN OUR NCO CORPS BETTER, WE WON'T HAVE AN ARMY.



**ENLISTED TRAINING
STRATEGY CMF 11**





USAIS STRATEGY

COMBAT READINESS

ARTEP

INSTITUTIONAL
TNG

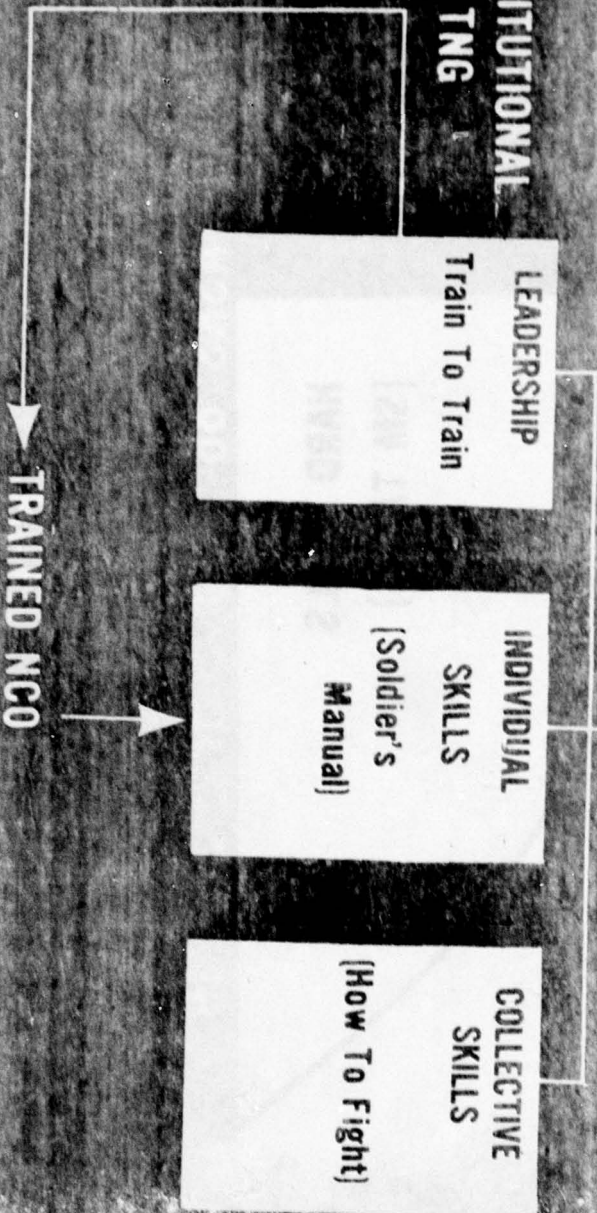
LEADERSHIP
Train To Train

INDIVIDUAL
SKILLS
(Soldier's
Manual)

COLLECTIVE
SKILLS
(How To Fight)

UNIT TNG
PLUS
TNG SPT

TRAINED NCO



HARD SKILL/SOFT SKILL RELATIONSHIP

SKILL LEVEL	1	2	3	4	5
COMMON TASKS	86	50	51	27	19

TECHNICAL
PROFICIENCY

HARD SKILLS
(SM TASKS)

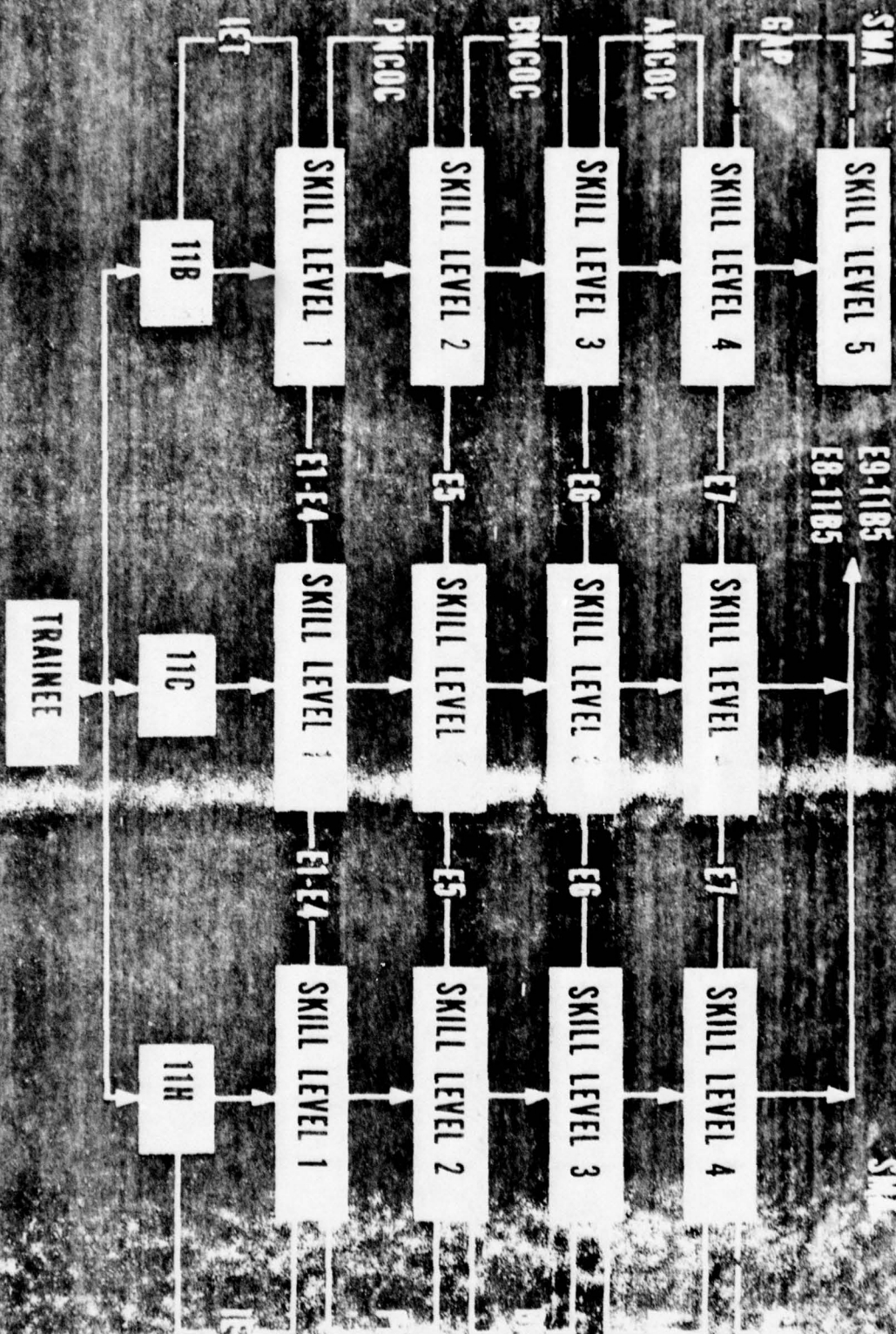
SOFT SKILLS

PVT SP4 SGT SSG PSG 1SG SGM CSM
SFC MSG
LEADERSHIP/MANAGERIAL SKILLS

PRESENT SYSTEM

GRADE	IEL/NGOES	UNIT	TNG SPT
E8-9	SGM ACADEMY (20 WKS) IDA SELECTION	SENIOR LEVEL	ACCP (IDA SELECTION) TEC ARTERS, ETV/DAMP (OBS/INTEL)
E6 (7-11 YRS)	ANCO (10-12 WKS) IDA SELECTION	ADVANCED LEVEL	ACCP, SM, SOT, S JTP ARTERS, ETV/DAMP (OBS/INTEL)
E5 (3-6 YRS)	BNCOC (4 WKS) (UNIT SELECTION)	BASIC LEVEL	ACCP, SM, SOT, S ARTERS, ETV/DAMP
E4 (2 YRS)	PNCOC (4 WKS) (UNIT SELECTION)	CRITICAL TASKS SL 3 TASKS PRIMARY LEVEL	JOB BOOK, SM, SOT, S ETV/DAMP, ARTERS, SOT
CIV-EI	OSUT (12 WKS) (MANDATORY)	INITIAL ENTRY TRAINING CRITICAL TASKS SL 1 TASKS	SMART BOOK, SOT, S
E6-E9 E5-E7 E6-E7 ALL RANKS	SPECIAL FORCES (16 WKS) (YOI) DRILL SGT SCHOOL (6 WKS) (DA SELECTION) INF MORTAR COURSE (6 WKS) DRAGON TNR (2 WKS) TOW TNR (3 WKS) RANGER (9 WKS)	SPECIALTY TRAINING	AIRBORNE (3 WKS) PARATROOPER (3 WKS) AIRBORNE (1 1/2 WKS)

INFANTRYMAN'S CAREER PROGRESSION UNDER EPMS



FINDINGS

SOLDIER'S MANUAL/ARTEP

SITE SELECTION

See table

INITIAL ENTRY TRAINING

38 OUT OF 86 COMMON TASKS
TRAINED

NCOES

PNCOC

22 OUT OF 50 COMMON TASKS TRAINED

BNCOC

16 OUT OF 51 COMMON TASKS TRAINED

ANCOC

23 OUT OF 27 COMMON TASKS TRAINED

SMA

See

SNCOG

TRAINING GAP FOR 1SG AND OPS/INTEL NCO

NCOES ATTENDANCE

See

SPECIALTY COURSES

See

TRAINING SUPPORT

CMF

See

11B MOS CRITICAL SKILLS TRAINING

INSTITUTION	UNIT
ANCOC	<p>SKILL LEVEL FOUR</p> <p>27 23 4 22</p> <p>2 22</p> <p>SKILL LEVEL THREE</p> <p>16 51 35</p> <p>2 7</p> <p>SKILL LEVEL TWO</p> <p>22 50 28</p> <p>6 34</p> <p>6</p> <p>SKILL LEVEL ONE</p> <p>38 86 48 51</p> <p>6 25</p>
BNCOC	<p>COMMON DUTY POS LESS THAN SL 4</p>
PNCOC	<p>COMMON DUTY POS LESS THAN SL3</p>
IET	<p>COMMON DUTY POS LESS THAN SL1</p>

100

22

DEAN OF TRAINERS



40-
...
... 00-21452-74 ... 508E . 1417

60C

FEW ATTEND NCOES

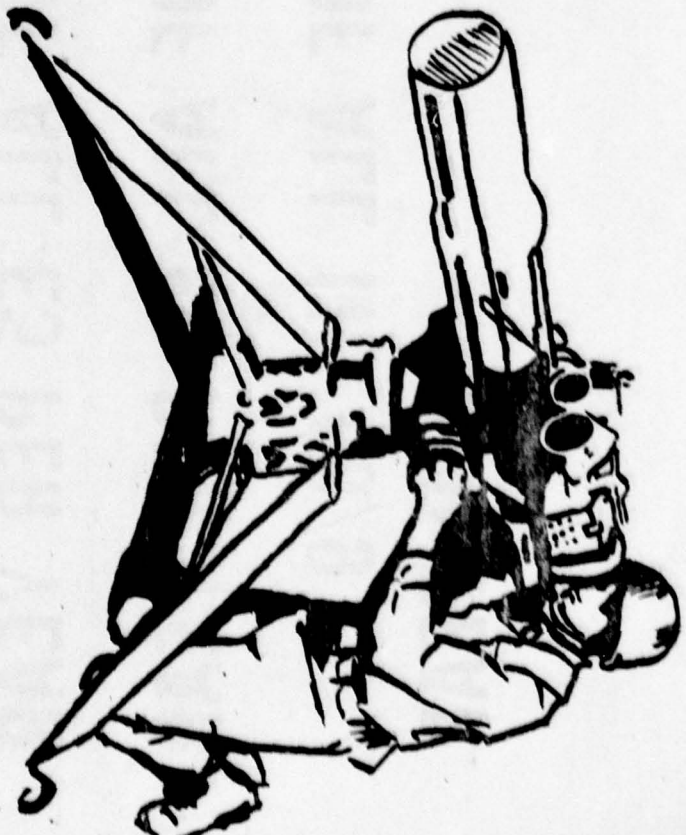
PNCOC 21% OF ALL E4 PER YEAR

BNCOC 28% OF ALL E5 PER YEAR

ANCOC 10% OF ALL E6 PER YEAR

SMA 3% OF ALL 11B E8/9

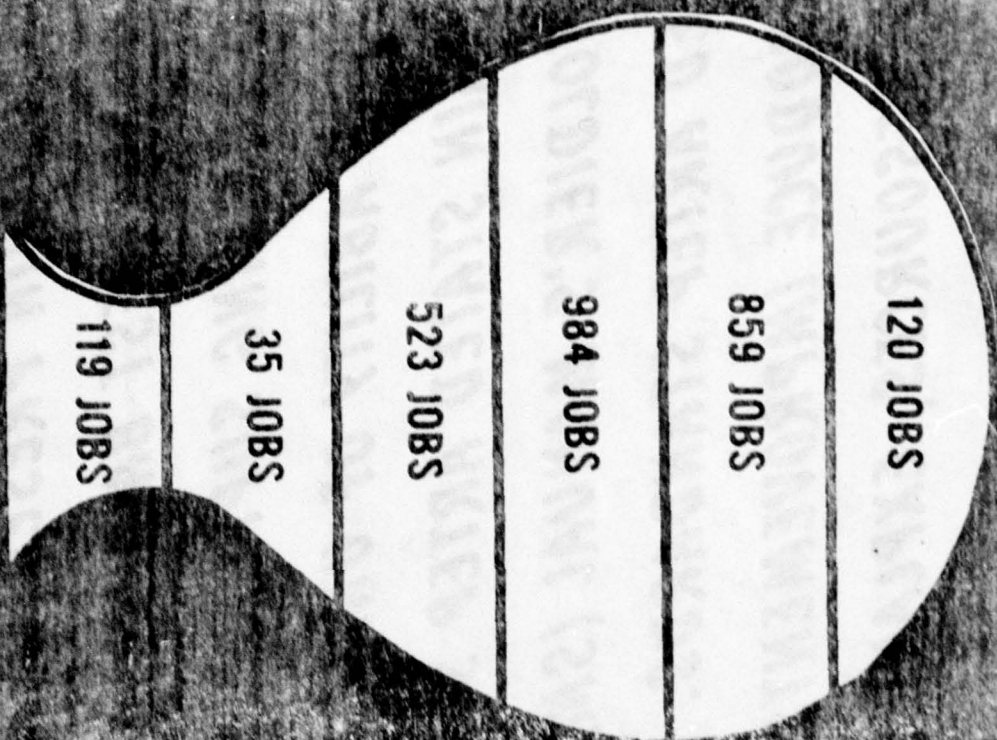
PER YEAR



MOS 11B OPERATIONS AND INTELLIGENCE NCO JOBS

OPTIONS

1. TRACK FROM SKILL
LEVEL ONE - MOST
ARTIFICIALLY FIRES
OUT BASE TO FORM
PYRAMID
2. TRAIN ALL 11B IN
OPS/INTEL - COSTLY
3. TRACK FROM SKILL
LEVEL 4.



< 1/2 OF ALL 11B

< 1/4 OF ALL 11B

< 1/8 OF ALL 11B

< 1/16 OF ALL 11B

< 1/32 OF ALL 11B

< 1/64 OF ALL 11B

• DETERMINE, WITHIN PRESENTLY AVAILABLE RESOURCES, THE BEST BALANCE AMONG IET, NCOES AND TRAINING SUPPORT WHICH WILL MAXIMIZE THE ABILITY OF UNITS TO ACHIEVE AND MAINTAIN STATED ARTEP STANDARDS AND THE SOLDIER'S MANUAL (SM) STANDARDS WHICH FEED ARTEP STANDARDS. IF TRADEOFFS CANNOT PRODUCE IMPROVEMENTS WITHIN AVAILABLE RESOURCES, EXPLAIN WHY THEY CANNOT.

CAPABILITIES

CLOSER ARTEP/SOLDIER'S MANUAL INTERFACE

**NCOES MUST SPEAK ARTEP/SOLDIER'S MANUAL
LANGUAGE**

IMPROVE SITE SELECTION

PACKAGE EXPORTABLES BETTER

PROGRESSIVE LEADERSHIP TRAINING

- DETERMINE THE TRAINING AND TRAINING BASE RESOURCES REQUIRED TO ASSURE UNITS THE ABILITY TO ACHIEVE AND MAINTAIN PRESCRIBED ARTER AND SM STANDARDS, USING CMF AS PRESENTLY STRUCTURED.

RESOURCES NEEDED

MORE NCOES COURSES/ALLOCATIONS

TECHNICAL PROFICIENCY GOAL FOR JR NCO

MILPERCEN ASSIGNMENT ASSISTANCE NEEDED

FIRST SERGEANT COURSE

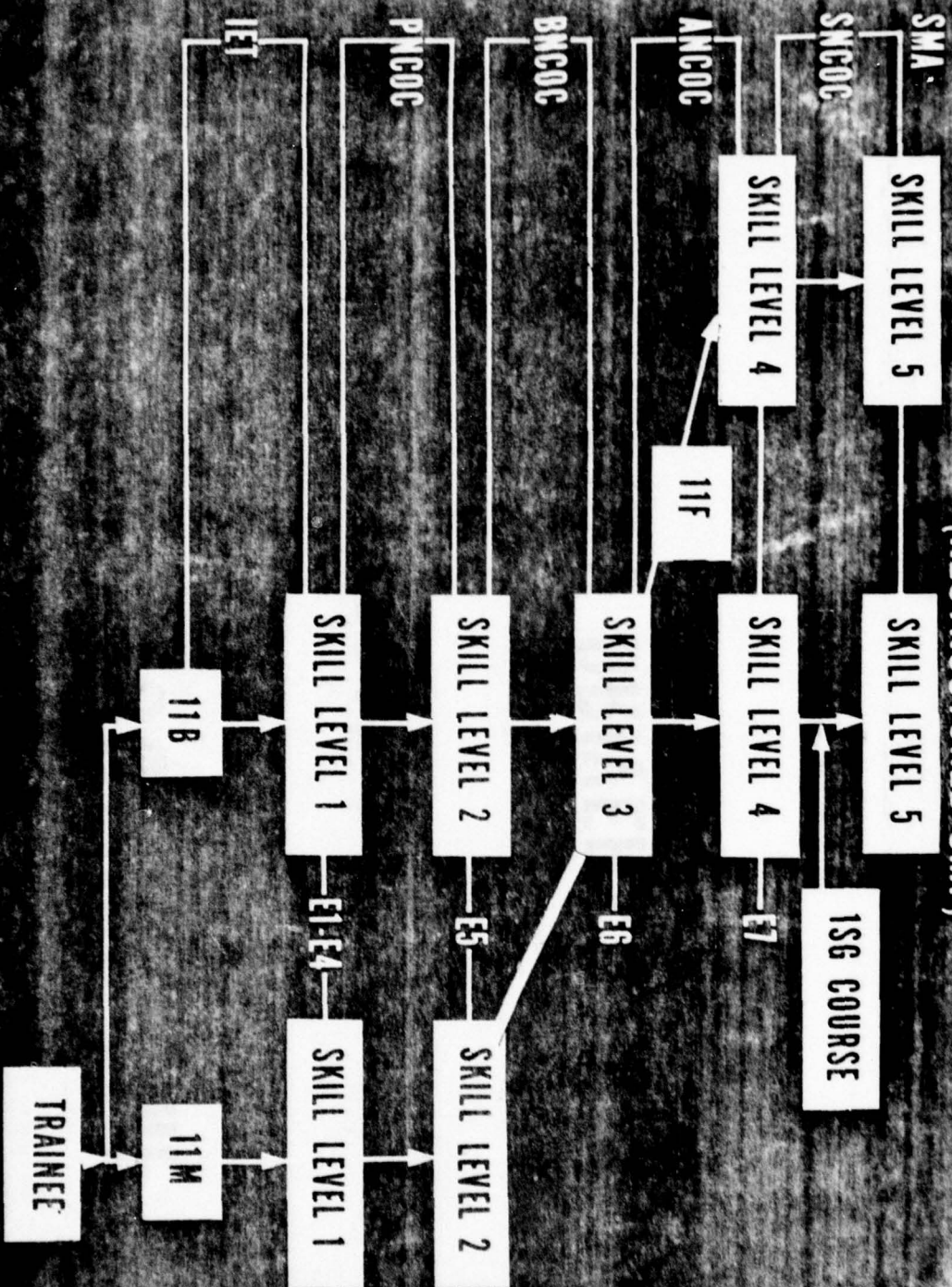
• ASSESS THE EXTENT TO WHICH
SPECIFIC CMF RESTRUCTURING COULD
NARROW ANY GAP BETWEEN CAPABILITIES
AND REQUIREMENTS. SPECIFY THE RATIONALE
FOR ANY PROPOSED CHANGES AND THE
ESTIMATED RESOURCE IMPLICATIONS.

RESTRUCTURE CMF

MOS 11F (OPERATIONS/INTELLIGENCE)

MOS 11M (IFV DRIVERS AND GUNNERS)

(RESTRUCTURED CMF)



SUMMARY

CAPABILITIES

CLOSER ARTEP/SOLDIER'S MANUAL INTERFACE
NCOES MUST SPEAK ARTEP/SM LANGUAGE
IMPROVE SITE SELECTION
PACKAGE EXPORTABLES BETTER
PROGRESSIVE LEADERSHIP TRAINING

RESOURCES NEEDED

MORE NCOES COURSES/ALLOCATIONS
TECHNICAL PROFICIENCY GOAL FOR JR NCO
MILPERCEN ASSIGNMENT ASSISTANCE NEEDED
1SG COURSE

RESTRUCTION CMF

MOS 11F (OPS/INTEL)
MOS 11M (IFV)

EVALUATION AND ANALYSIS

1. The ISD Process and how it should work. Commandant's Strategy drives priorities.
2. Why the ISD process does not work like it should in TRADOC.
3. DCD input to ISD.
4. Feedback/evaluation input to ISD.
5. Inprocess Review of Phases I, II and III.
6. New course development process:
 - a. Typical
 - b. A different way.
7. Evolutionary change.
8. DEV field survey data for analyses.
9. Internal evaluation data for analyses.
10. DEV - motor to cause change.
11. Evaluation program.
12. Principles of revising training.

I am the strongest supporter of the ISD Process - for 2 reasons:

1. I have been in the Army School system off and on for 23 years and lived through no system for development through Systems Engineering to ISD.

2. I am the DEV and you can't be in evaluation if you don't understand and support the process.

Today, I propose to give you an evaluators over view of the process and some of the mistakes we make and my thoughts on how ~~it~~^{we} should work.

SLIDE 1. Process:

A way to accumulate information i.e., various steps by which we accumulate different kinds of information about a given job. Each of products of process is nothing more or less than presentation of that information. You can't make presentation until processor has accumulated information to be presented.

Why doesn't it work? Because ^{we're} not following process - requiring products out of sequence - stove pipe guidance from numerous TRADOC staff elements exercising their priorities in isolation of others and the process.

SLIDE 2. You have to start with Combat Developments, knowing where they are, what they are thinking and where they are going.

This has to be integrated into the DTD efforts and someone has to oversee whats going on so the program can be fully developed and resourced. Thats ^(PROGRAMS & RESOURCES OFFICE) the PRO along with a forum of representation for DTD/DCD/DOT/DEV and don't forget DOS.

SLIDE 3. Where does DEV fit in. DEV should be the focal point for field and DA feedback into the system.

This busy chart represents the thinking of my design and control folks in developing an overall evaluation model to input the feedback into the process.

Its not all inclusive but we try to really look at everything that impacts on our commandants strategy and where it fits in the process.

SLIDE 4. Here is a simplified view of what I have just described. As you see, we must consider DCD input, resource requirements impact, feedback - DTD efforts integrated and all evements involved in programming.

Don't forget to measure out current product - by comprehensive end-of-course testing and field surveys - to make sure we are not making changes where they are not necessary.

SLIDE 5. We in DEV believe that the we can't do our job well unless we are aware of whats going on throughout DTD, so we are attempting to implement an in-process review system through a series of checklists. These will also give us an audit trail to tell us who, what, when, where, and why we did things in the process.

The A - E arrows are management IPRs to tell us where we are and where we should go from here.

SLIDE 6. The typical process as viewed by some people looks like this. Do all tasks completely through the process. This throws out the good things we already have (throwing out the baby with the bath water).

SLIDE 7. A more logical approach is - through MGT IPRs and careful analysis of current courses or products - to develop only those which are new or require change.

SLIDE 8. Here we see portrayed change through evolution not revolution. Change gradually what needs to be changed, so when the new course comes on line or a new soldiers manual is developed, we have a evolutionary change.

SLIDES 9-10-11. Some of our previous DEV efforts - Most recent CMF 67 started with 67Y ~~course~~ ^{MOOSE}.

SLIDE 12. FY 79-80 Evaluation Program.

THE PROCESS

TL

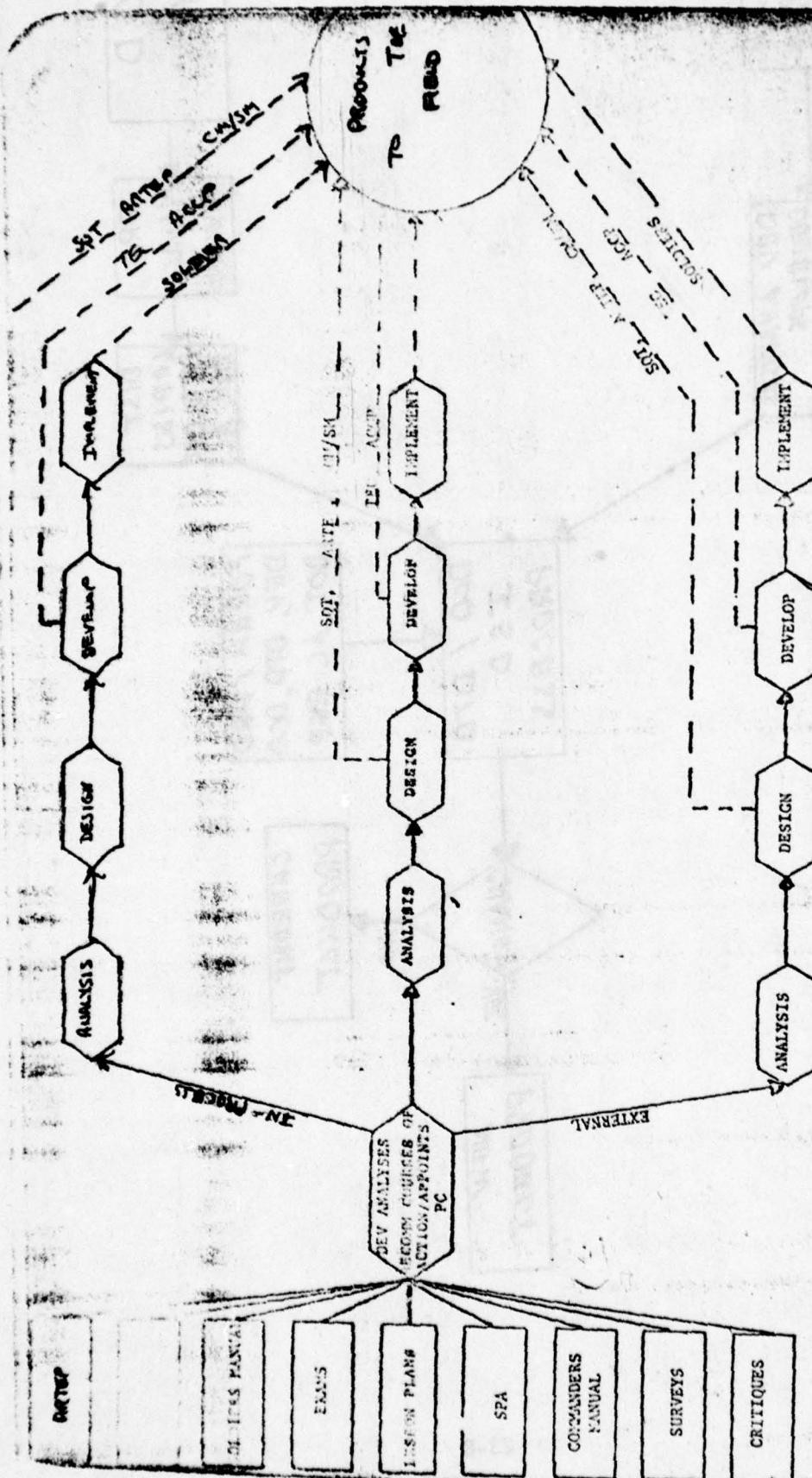
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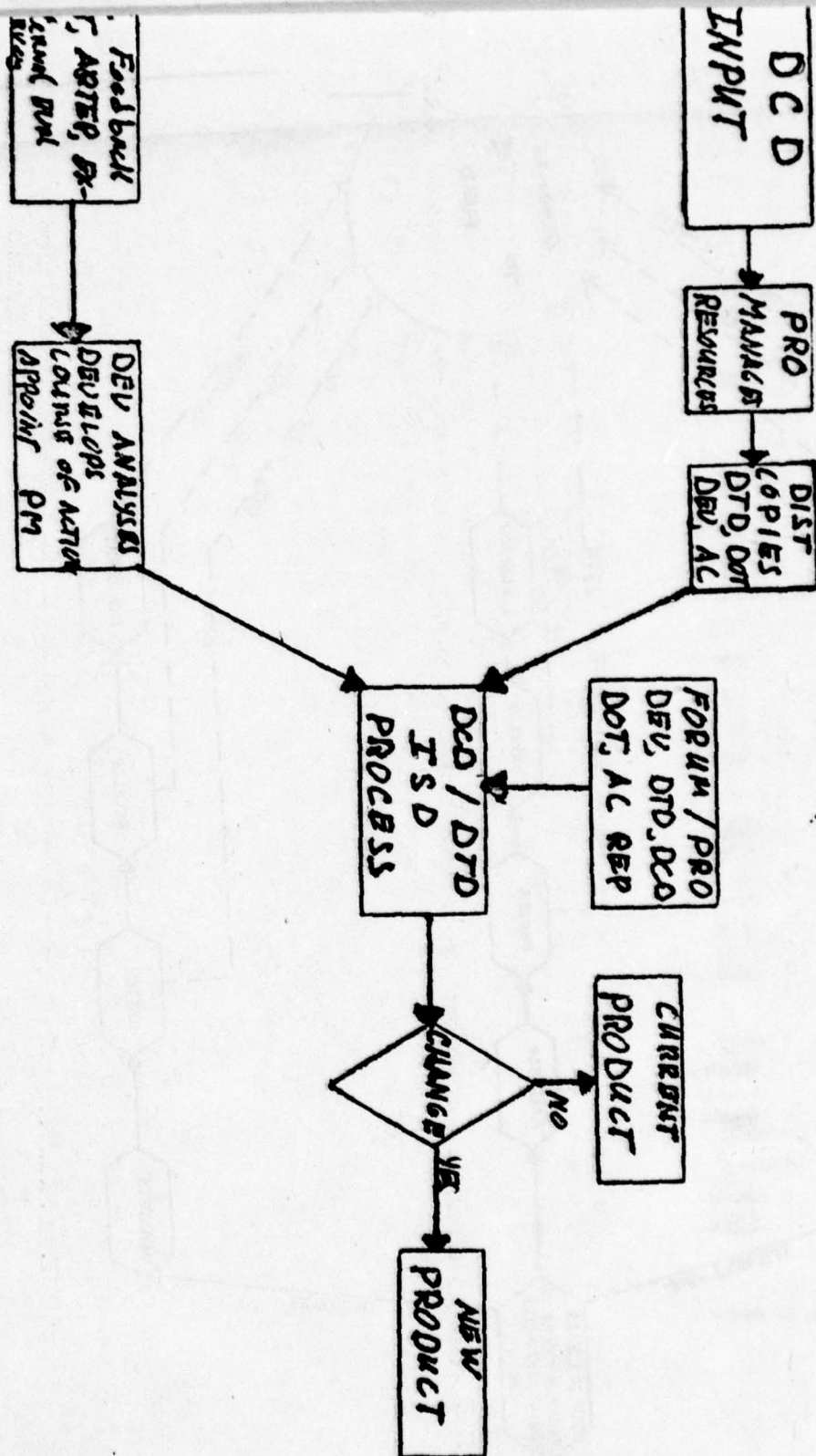
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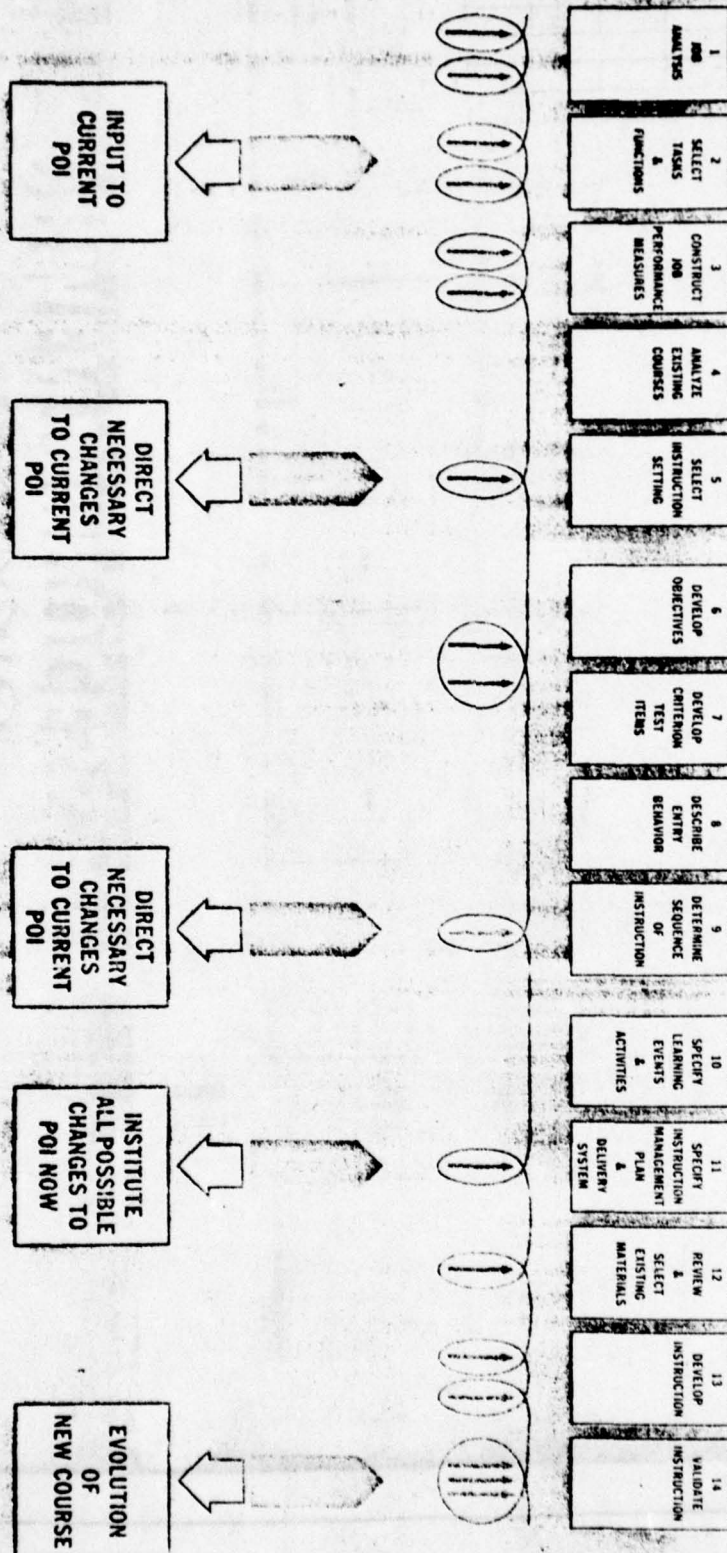




ANALYZE

DESIGN

DEVELOP



IT'S A NEW COURSE IN OPEN ROADS

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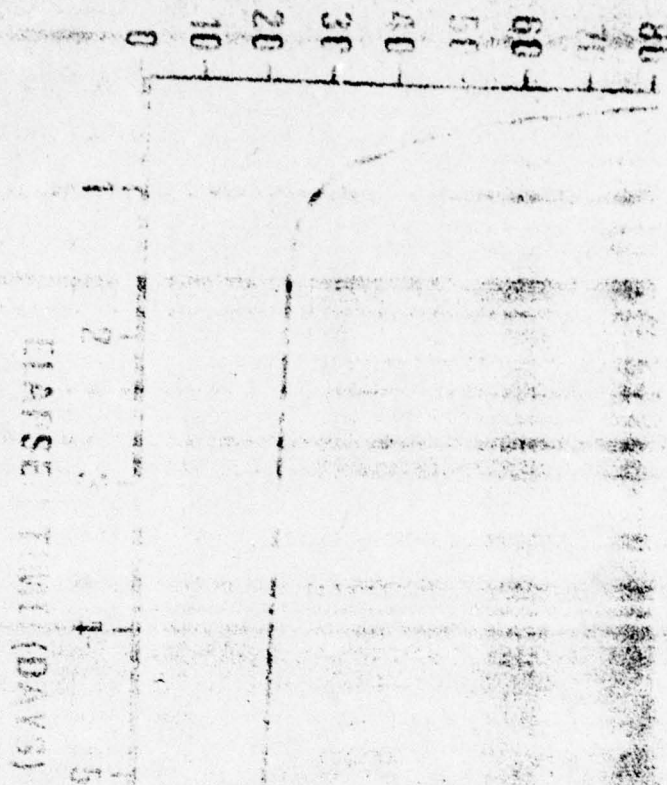
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EVOLUTIONARY CHANGES

IPR

% RETENTION




PROJECTED RETENTION

.....

.....

.....

08-111-0

[illegible]

Good morning, ladies and gentlemen. I'm Jim Rockey, Director of Evaluation at the Transportation School. Wow! This has been some session. What we have been talking about is so heavy I feel like sending out for a Camp David sandwich - lamb and grits on a bagel.

ROLE OF EVALUATION IN QUALITY CONTROL OF TRAINING DEVELOPMENT PRODUCTS

This briefing should be a little lighter - The Role of Evaluation in Quality Control of Training Products. Nothing heavy there! All the heavy stuff comes later; this role is just the foundation. And, as you well know, if the foundation is bad, the structure is bad. Those guys in Pisa who built their tower taught us that.

If we don't spend resources to control the quality of Job Analysis - task analysis - learning design - and materials development, all the external evaluations in the world won't do anymore than tell us we didn't do our homework before we issued the product - whether that product be a trained mechanic or a Commander's Manual.

Most of the individual performance problems we discover in the field could be prevented with adequate quality control of DTD processes, months - even years - before the product was issued.

IN-PROCESS EVALUATION THE KEY TO QUALITY TRAINING PRODUCTS

PROCESS CONTROL IS THE KEY TO QUALITY PRODUCTS.

Let's catch a little history and underpin our discussion with some more background.

OBJECTIVE #1

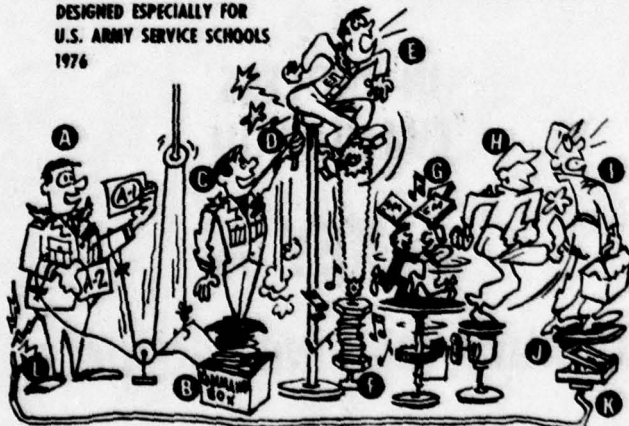
**EXPLAIN NEED FOR IN-PROCESS REVIEW OF
DTD BY EXTERNAL AGENT, AND GAIN
MISSION & RESOURCES FROM BOSS.**

Oh, by the way, your first performance objective from this briefing is this: To be able to explain the need for external in-process review of Training Developments to such a degree your boss will assign you both the mission and assets.

When School Model '76 was designed, the essential functions of training and training developments were separated, in part to provide a higher level of expertise in training technology, but also to provide a more objective control of course content. It was envisioned that by adding objectivity and constant review, the School would be a self-correcting mechanism, never again to suffer the pangs of curricular revolution. This self-correcting feature of the new organization was housed in an independent Directorate of Evaluation - the few smart guys who never blink. We are the "self" in "self-correcting mechanism."

SELF-CORRECTING MECHANISM

DESIGNED ESPECIALLY FOR
U.S. ARMY SERVICE SCHOOLS
1976



As displayed here, the Director of Evaluation, (A) raises his arm to deliver external evaluation report (A-1) or internal evaluation report (A-2), lifting the lid on the Assistant Commandant's box, (B) who springs into action, (C) in doing so, raises his hardened and sharpened guidance rod, (D) to jab the actuator mechanism of the Director of Training Developments, (E) who pumps furiously causing his accordion to play the ISD waltz fortissimo, (F) which causes his team to dance quickly about in circles spewing out new Soldiers Manuals and course materials, (G) and being linked tightly to DOT, (H) causing him to march in a different direction, kicking new trainees (I) into a unit's performance measurement scales, (J) which closes the gate switch, (K) causing Evaluation to be struck in the rear by a bolt of feedback (L).

The major reason for a Directorate of Evaluation being placed in the School Model was to exercise quality control of school operations and to energize the self-correcting nature of the school organization model.

BUT
ISN'T THAT THE BOSS' JOB?

But one might ask, "Isn't that management's job?"

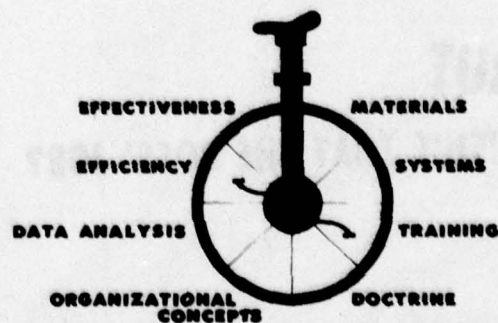
Yep! It sure is. And that's the reason Evaluation reports directly to the boss. We're the "self;" he's the "correcting." We give him the information he needs to make corrections. We were designed to be a direct extension of the boss' arm to scoop up facts and to perform the nitty-gritty details so necessary for quality in this business.

Actually, the concept is borrowed. The financial community for years has used a concept of a third-party auditor. When one buys and sells property, the money goes through an escrow and others arrive at who pays what split. Other Government agencies such as Labor and HEW and NASA utilize outside evaluators and auditors to judge the correctness of work. And the concept of a third-party auditor has long been standard in the commercial training world, especially the curriculum development portion of that world.

And in our military world it makes much sense. Even the best of us subjected to deadlines or pressing suspenses will take an occasional liberty with a prescribed process. We sometimes sneak out a letter unchopped. We sometimes back into numbers. And most of the time it makes little difference. In job analysis, haywiring a circuit can be deadly. That's like using cream of wheat rather than cement in your concrete mix. DTD's processes are so important to the end items of our business those processes must be verified externally.

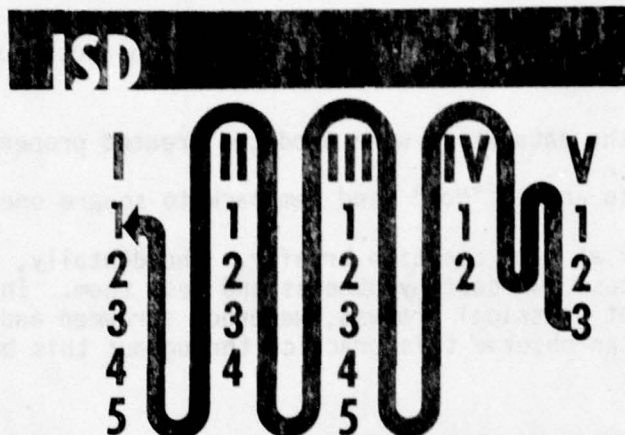
The result of failure to verify processes not only is bad task lists - bad Soldier's Manuals - bad SQT's - bad Commander's Manuals, it's bad performance in units. It's lack of readiness, and that causes revolutions in school courses - wholesale, slambam changes in the way we train. Our job as the motor of the self-correcting mechanism is to cause evolutionary change. If ever we need to revolutionize a course again, you and I have failed in our mission.

LIFE CYCLE ASSESSMENT



Our charter is life cycle assessment of all proponent systems - particularly the training subsystem. It is we who must set the self-correcting mechanisms in motion. And we must do that early-on.

If we are to perform this vital function, we cannot hold the evaluation and control function passive until Phase V of the Process. If this were the case and we discovered major flaws in Job



Analysis, Step 1 of Phase I, then the process would loop back and start all over again and the majority of 2 or 3 years of invested resources would be lost. The time and effort lost when such a situation exists can hardly be considered an efficient or a self-correcting mechanism. The risk of allowing the Training Developments process to run for 2 or 3 years unchecked except by internal management subject to incomplete training, organizational turbulence, contracted deadlines, and career pressures should be unacceptable to any prudent general manager. Thus, in-process review of Training Developments is a key ingredient of successful school management.

1. WERE ACTIONS OBJECTIVE & SCIENTIFIC?

2. WAS SAMPLE ADEQUATE?

3. WERE DATA TREATED PROPERLY?

In performing these TD in-process reviews, one needs ask only three critical questions:

1. Were the actions taken to gain this information objective and scientific?
2. Was the sample used adequate in terms of both quantity and quality?
3. Were the data which were produced treated properly?

If the answer to any is "No," send 'em back to square one.

Let's look at each question briefly. Incidentally, in the scientific process, we cast hypotheses and test them. In our Army practice of that classical process, we erect strawmen and gain reaction to them. One can observe this practice throughout this briefing.

[REDACTED]

WERE ACTIONS DURING THIS PHASE OF THE PROCESS OBJECTIVE AND SCIENTIFIC?

[REDACTED]

Were actions during this phase of the process objective and scientific? We suggest a series of simple checklists to formulate answers to that question. A checklist used to quantify this question in Phase I must determine, for example, how job competencies were selected for the raw task list, how that list was tested, and how many tasks were rejected, added, or modified and on what basis these modifications were done. Developers tend to develop a personal attachment to their work and products, and they tend to become emotionally resentful if validation efforts indicate rejection or modification. They develop a pride of authorship. They must often be reminded that initial efforts must be treated as a strawman, a hypothesis, not a conclusion.

**WAS THE SAMPLE ADEQUATE IN TERMS
OF BOTH QUALITY AND QUANTITY?**

Was the sample adequate in terms of quality and quantity? It is important first to ascertain whether we have data from a scientifically-selected sample, or a catchment. The fact that 25 percent of MOS holders responded to an information survey is meaningless unless we know which 25 percent - all the females? All the short termers? All the want-outs? All the first termers? A scientific sample is a deliberate selection by some orderly means. Perhaps the largest and most sophisticated Job Analysis agency in the world, VTECS a subsidiary of the Southern Association of Schools and Colleges, uses Educational Testing Service to control respondents in Job Analysis surveys. If a VTECS Job Analyst cannot interview the craftsman selected by a computer to respond, he must return to the computer for a substitute name. After the quality of the sample is determined, it is important to know if the number of respondents in the sample was adequate. Each of us has an employee or two on his staff who knows how to use random numbers and other statistical control tables. By the way, those kinds of tables need to be part of DTD procedural guides.

WERE THE DATA TREATED PROPERLY?

Were the data treated properly? While this may be a little scary to ask if you don't have an ORSA-type in your hip pocket, it's really very simple. Four subquestions need to be answered.

DATA TREATMENT

- 1. PRESCRIBED DESIGN FOLLOWED?**
- 2. ALL RESPONSES INCLUDED?**
- 3. RESULTS ARITHMETICALLY CORRECT?**
- 4. PROPER CONCLUSIONS DRAWN?**

1. Was the prescribed data treatment design followed?
2. Were all data - all responses - entered into the analysis?
3. Were the results arithmetically correct?
4. Were proper conclusions drawn from the data? Note that this question is based on a prescribed data treatment paradigm.

BUT

SHOULDN'T DTD BE DOING THAT?!!

SHORE SHOUDI!

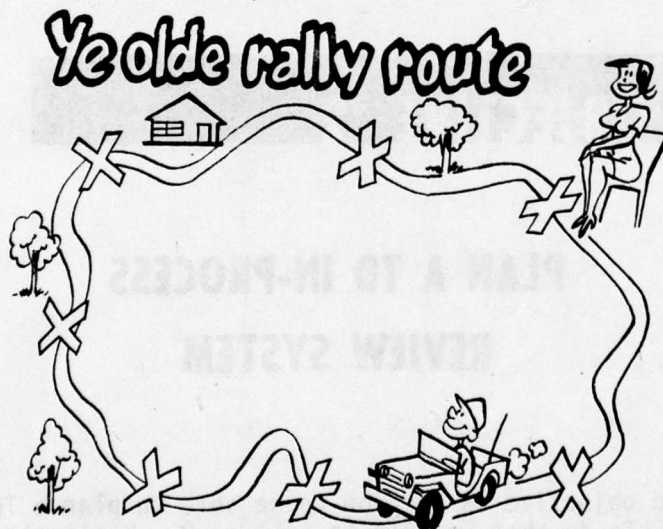
Now back to the key question. Shouldn't DTD management be asking those questions routinely? Yep! They sure should! And if they aren't, your boss needs a new DTD. Our role as Evaluators is not to

EVALUATORS AUDIT !

SUPERVISORS MONITOR !

monitor DTD or other peers, it is to audit performance. Directorate management SUPERVISES, MONITORS, performance. You VERIFY their results. All you do is check the blocks and stamp the sheet. And if the machine is working, it shouldn't take more than 10 minutes.

This verification process proceeds from checkpoint to checkpoint, assuring the boss that no one has haywired a million dollar course by blinking at the wrong time. Or by winking at any time! We'll talk about those checkpoints and spell them out in some detail a little later.



Actually, a TD In-Process Review System isn't unlike driving in a sports car rally. First, if your DTD has a thin skin, it can be a very sporty course. Second, you identify those points you consider to be critical to keep on-route and make those points checkpoints.

OBJECTIVE #1

EXPLAIN NEED FOR IN-PROCESS REVIEW OF DTD BY EXTERNAL AGENT, AND GAIN MISSION & RESOURCES FROM BOSS.

Now you have enough information to perform the first objective.

In-process verification of training development functions is an essential evaluation mission which can be conducted without great expenditure of resources, if properly planned and completely supported by general management. The first objective is to obtain the required support from the Commandant by convincing him of the need for a Training Development In-Process Review System and by obtaining support for necessary authorizations and assets to conduct this program.

OBJECTIVE #2

PLAN A TD IN-PROCESS REVIEW SYSTEM

The second objective is for you to be able to plan a TD In-Process Review System. To do that we need to call on Mr. Kipling's five honest serving men: Who, When, What, Where, and Why.



We have already discussed "Why?" Let's add "How?" and we're in business.

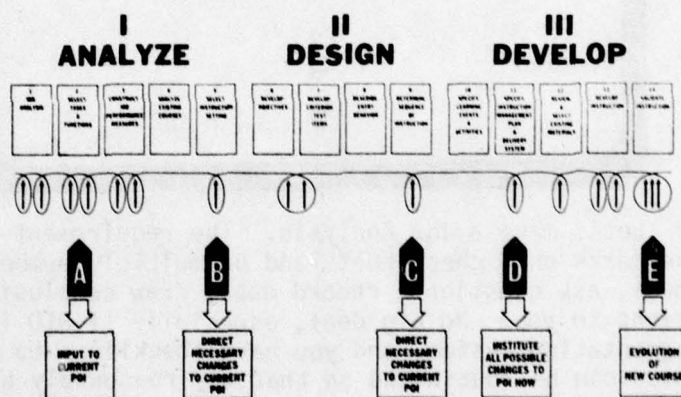
WHO?

"Who?" Let's make a Job Analysis. The requirement is to: Read tables, make marks on a checksheet, add or multiply numbers, subtract or divide numbers, ask questions, record data, draw conclusions and make recommendations to you. No big deal, especially if DTD is set up with a working documentation system, and you have checklists to match. The entire process can be routinized so that any reasonably able E-5 can do 99 percent of the audits. In some cases his audit will lead you to throw in a heavier weight - a numbers cruncher (that's a statistician, but I can't pronounce it), a subject matter super-expert, etc. And rarely, you, in person, will have to rattle cages and make ugly faces. So if those circumstances are true, how many "Who's" do you need? How long is a road? We presently forecast that everything but the final check can be done, if you and the DTD are organized and all documents in sync, in about 16 hours per MOS. Now, spreading that 16 hours over the

2 years, or whatever time your DTD has been taking to process from job analysis to materials validation, and dividing the 16 hours by that time will give you the number of man-hours per year. You go from there. The secret is get it organized - routinized - and avoid debate.

WHEN?

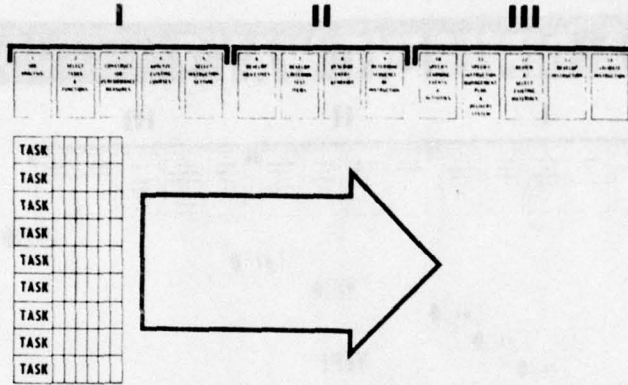
"When?" The illustration I will show you identifies 17 separate items in the ISD process that ought to be checkpoints. Additionally, 5 of these 17 ought to be school management team IPR's and decision points. Actually, each school must design its own system. The number of checkpoints a school uses is directly proportional to the amount of risk your boss is willing to accept. I'm an aviator. I don't like risk. The system I will illustrate here allows us to get down from any point with an absolute minimum of loss. Let's take a look.



You will note that the blocks across the top are the usual ISD steps taken from 350-30. We do not exactly follow that model at TSCH, and it is unlikely that you do at your school. Thus, this checkpoint sequence used here is illustrative of a concept, not representative of

what we are trying to get set up. Reading down the chart, note at the top the phases in Roman numbers; then the steps of ISD; then the loops of evaluation verification points; then arrows showing management IPR's; and finally course evolution output descriptors. Let's digress for a moment and explain that last concept.

TYPICAL NEW COURSE DEVELOPMENT PROCESS

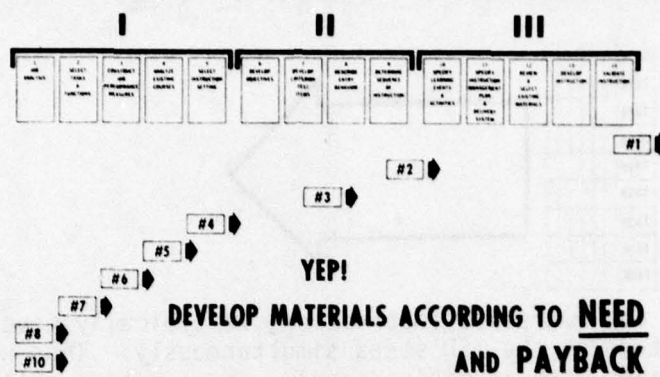


In doing a new course of instruction, we typically move all tasks of that course through the ISD steps simultaneously. Thus we arrive at Step 14, "Validate" with an entire course, or an entire skill performance aid set, or some other entirety to be tried out and calibrated. And as long as we are working on something entirely new, and we have enough time before the drop dead date, we can follow that process. And that is, I believe, precisely what most DTD's have done. And that may be why in the great majority of our schools, DTD has had no or very little impact on resident instruction in 3 years. Most DTD's have never reached Step 14 with that whole mass of material, and USATSCH is no exception.

However, let's consider that any of our schools will rarely, if ever, have either the luxury of all the time we want or the need to revise everything that is being taught. First, with our new systems we do not have 2 or 3 or 4 years from the time we can nail down a master task list to get instruction on-line. So typically we start new systems instruction in one mode, a lock-step replica of IKPT, and switch later - maybe. Second, we are already teaching our existing systems. We have courses on line for all of our existing systems. They might not be "ISD'd;" they might not be "self paced;" they might not be media intense; but they do teach, and in most cases not badly either. They have tasks; they have some media; they have a lot of good things. They are not all bad. Yet it is precisely that assumption which underlies a process which develops entirely new training material for all tasks of an existing course simultaneously. Everything must be replaced. Additionally, that process is revolutionary course by course. It is not

evolutionary; and evolution is what the School Model, and we, are all about. When I throw out a major course and bring on an entirely new course, I disrupt the status of training and competence of several hundred instructors, several thousand students, throw away existing materials, and generally spend a lot of money to get back to where I was. That's a fairly substantial revolution. Now consider alternatives to revolution. Let's bring on a new course one task at a time and let's make one change at one time. Let's run one rabbit into one hole at one time.

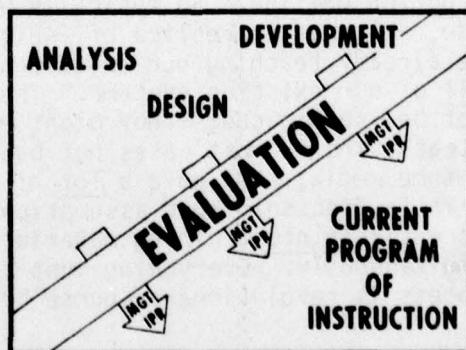
A DIFFERENT WAY?



This illustration shows us running one task through the entire sequence and bringing it on line. We have previously prioritized our tasks. Entirely new tasks to satisfy systems modifications or training voids are first priority. Tasks which represent serious performance weaknesses are number two. The others come down as the amount of bang comes down.

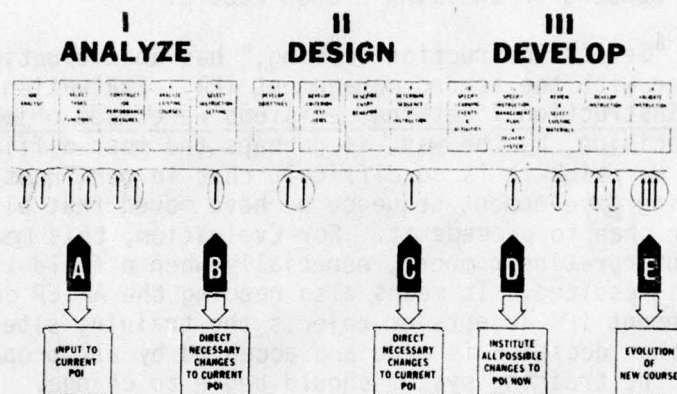
Now what does that do? Combined with the evolutionary output from management IPR's, it makes for course evolution not revolution.

EVOLUTIONARY CHANGE



As management approves a new task list, the changes that task list represents should begin to reflect in the training system. If tasks have been dropped, they should be! If new tasks have been added, they should be developed and added! Thus every management IPR should result in evolutionary changes to our instruction system. Incidentally, you will hear people say you can't insert self-paced tasks or blocks into a lock-step course. That's nonsense. The entire aviation component at Skyline is organized on that concept, as are many entire schools. Every experienced training manager in our system knows how to do that.

Now let's go back to the TD In-Process Review System.



Under Step 1, "Job Analysis," are two checkpoints. First we need to verify that the raw task list - the original strawman that goes out for reaction - is drawn from all required sources, not just from CODAP or not just from some SME's experience, or not just from what some instructor feels he would like to teach captains. Our experience thus far shows that if that first strawman is not carefully constructed - not the result of careful and thorough research - the possibility for damaging-error multiplies immensely. This, by the way, for Evaluation is a checklist job. Second we need to verify that field and interview responses to the strawman have been properly treated and the raw task list revised appropriately. For Evaluation that is reading a table.

Under Step 2, "Select Tasks & Functions," also are two checkpoints. First, Evaluation needs to verify that the data treatment used to formulate the master task list - a process chiefly of eliminating tasks which fall to the periphery of the delta curve and must be specially tested for criticality and other matters to be retained in the training universe, have been proper. For Evaluation this is reading a table of numbers or a algorithmic worksheet. Second, Evaluation must certify to management that all prescribed procedures and generally accepted

standards were followed in developing the training structure of the MOS. This is chopping on the record block of a DTD document. At this point the full management team should be assembled as a board of senior professionals and recommend to the boss acceptance or rejection of the MOS structure. Parenthetically, this sometimes is a decision - as in the case of many of our 68 series MOS - to "take on" DA DCSPER and eliminate one EPMS level. Once a management decision is made, that task list should begin to revise the training system for that MOS.

Step 3, "Construct Job Performance Measures," also has two checkpoints. First, Evaluation should verify that the "Job Performance Measures" are in fact measurable standards of the job. This involves reading a matrix and reading table numbers. Second, Evaluation should verify that these Job Performance standards have been accepted by the field and all agencies concerned. This again is reading a checklist and interpreting numbers or checking a chop record.

Step 5, "Select Instruction Setting," has an evaluation checkpoint in conjunction with the second management IPR. Evaluation needs to verify that instructional setting decisions were made objectively. That particular decision, by the way, is perhaps the most difficult decision of the set. We think it is so difficult that in our Transportation School training development sequence we have moved that block to follow design rather than to precede it. For Evaluation, this means reading a matrix and interpreting numbers, especially when a field-train site selection has resulted. It means also reading the ARTEP crosswalk. The second management IPR accepts or rejects the training site selection. Again, once that decision is made and accepted by all proper authorities, the training system should begin to change.

In practice, Steps 6 and 7, "Develop Objectives" and "Develop Criterion Referenced Test Items" are really one, so Evaluation has one checkpoint with two items. First, Evaluation verifies that the training objectives are directly related to the master task list, and are complete and are measurable. This is reading a matrix and using some judgment. Second, Evaluation verifies that the criterion test items actually reflect the conditions and standards of the objective and do in fact measure those standards. This is reading a matrix and interpreting numbers.

Step 9, "Determine Sequence and Structure," has one checkpoint and this one only because all so-called design functions have been completed. At this point, Evaluation should certify to management that the learning design is according to management's guidelines. For example, basic skills instruction is imbedded in the tasks rather than separately taught, no theory is included; or other localisms. Evaluation ought also to verify that all tasks are covered in the individual training package. These checkpoints involve only reading a

detailed learning map and reading a multicolumn checklist. The third management IPR accepts or rejects the objectives, CRTI's, the MOS learning map, and the Individual Training Package plan.

Step 11, "Specify Instructional Management Plan & Delivery Systems," has one checkpoint. Evaluation needs to certify to management that all agencies have chopped the specific support requirements of the management plan and that CTEA's have been done objectively - DAFE has committed to the facilities requirements, supply has committed to equipment, AG has committed to printing, DPCA has committed to personnel requirements, etc. For Evaluation this involves reading a chop record. For DTD it means a hell of a lot of detailed planning typically not now being done. For many installation support functions, it means not being able to plead ignorance when the fun starts. It should be noted that this is a critical set of decisions for the boss to make. Based on this and the last decision, he has allocated assets, ordered supplies and equipment, began adjustments and modification of facilities, etc. Since the course has been evolving in this direction for some time, the shock wave should be slight. However, to turn back after this point costs a whole bunch of money and heartburn.

Step 12, "Selection of Existing Materials," calls for one checkpoint. Evaluation merely reviews a checksheet to see that "make or buy" decisions have been made objectively. We look to see that DTD has, in fact, looked at other Army schools, other services, and commercial courses for existing materials that will suit the objectives just as well and more cheaply than simply writing new materials.

During Step 13, "Development of Instruction," Evaluation should first review the results of one-on-one material tryouts. This is only reading names and numbers in a logbook. Second, Evaluation should review the results of small group trials. Remember, in both of these checks Evaluation is going to check sample quality. It is especially critical here to ascertain that the trial learners are representative of the target population.

In Step 14, "Validation," Evaluation finally earns its money. Three checks are critical. First, Evaluation must certify to the "goodness" of the learner sample, as in the one-on-one trials and small group trials. Second, Evaluation should observe the entire validation iteration - from staff training to student testing - to ascertain compliance with the course management plan and materials. Third, Evaluation must conduct comprehensive testing and compare those test results to prescribed job performance standards, CRTI's, and certify to management the results of the validation iteration. For Evaluation this involves developing the comprehensive testing plan, likely borrowing and training manpower, gathering and crunching a lot of numbers, etc. But when the process is over, the management team can sit down together in the final IPR, consider results, and make its recommendations to the boss. If you've done your work right, the product goes on line.

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ARMY TRAINING DEVELOPMENTS INST FORT MONROE VA
PROCEEDINGS OF THE TRADOC CHIEFS OF ANALYSIS SEMINAR HELD IN NE--ETC(U)
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Through this, or some other, stringent quality control system, your directorate's external evaluation functions can take on a new meaning. External evaluation will then mean looking for performance problems on a fine-tune scale.

**WHAT?
AND
SOME HOW? TOO!**

**ALL FOR THE PRICE
OF WHEN!**

And that was "When?" but it was also a lot of "What?" and a lot of "How?".

WHERE?

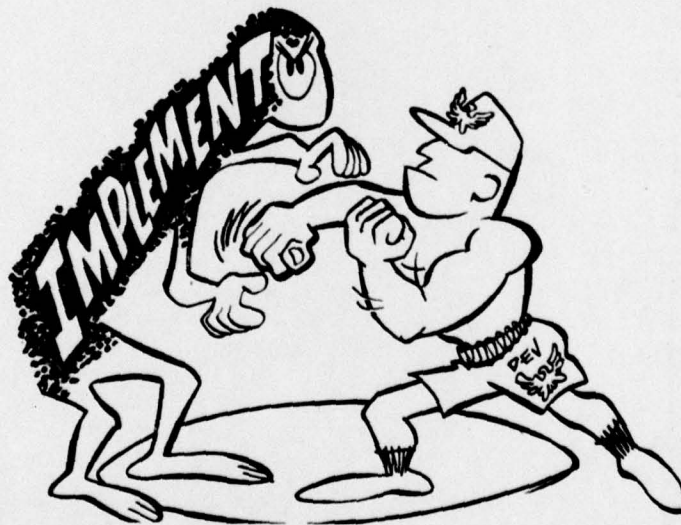
"Where?" We believe that Evaluation work should take place on the customer's premises. Your evaluator, or evaluators, should work up and down your DTD halls on a tightly controlled daily schedule with set amounts of time allowed for quality checks. But that's a "How?"

HOW?

**VERY, VERY
CAREFULLY!**

And speaking of "How?" How does one check each point? Very, very carefully. The DTD process is spending an awful lot of money. It's your job to see that the product is worth that cost.

What we have tried to do in this briefing is to provide information concerning a facet of the Evaluation Directorate's mission which you might not have fully realized or considered. As a result of possessing this information you should be able to explain a TD In-Process Review System to your boss and possibly to get assets to perform that mission. You should also be able to plan your own TD In-Process Review System.



A third objective, "Implement the System," is one we are still grappling with. But I can assure you that our grappling will pay off for the school. Whether we eventually perform this full system or not, simply surfacing the issue of quality control in Training Developments' products has caused the DTD group to begin thinking, and acting, in terms of more stringent quality control. And I believe at issue is quality control, not who exercises that control. But, we believe that control should be external as well as internal to the DTD.

If all men were always objective, and scientific, and never reacted adversely to short deadlines or tough suspenses by short cutting a system, or if men never winked away requirements, we wouldn't need to worry about quality control. But if that were true, Moses would have descended the mountain with 10 Guidelines cut on those tablets, not 10 Commandments.

TRADOC EVALUATION
(HQ PERSPECTIVE)

The word Evaluation evokes varied reactions from those who find themselves subject to outside scrutiny of their efforts. Quite often this hesitant response has occurred with some justification.

The familiar phrase, "we are here to assist you, not to inspect you," is met with some lack of credence based on empirical evidence and tales of the virtual end of the line for those who "failed" this or that "assistance visit."

Therefore, the biggest problem/obstacle for "evaluators" whether at HQ TRADOC, in the schools or in the field is usefulness of purpose and credibility. The single most important aspect of credibility is to provide useful feedback to people who need the information whether they be analysts, directors, the Commandant, or field commanders. Part of that change is to direct the feedback to a level of authority which can institute change.

Our perception of the roles and missions of the school directorates of evaluation are as follows:

Perform life-cycle assessment of proponent materiel and training systems.

Collect and analyze individual and unit performance data.

Conduct internal and external evaluations as specified in the ISD model.

Develop, conduct, and analyze in-course and post-graduate surveys.

Analyze effectiveness of resident and non-resident instruction.

Develop studies and systems to measure curricula effectiveness.

Identify and define training, training development, and combat development problems.

Recommend changes to training, training support, and materiel systems.

We suggest that there are a number of sources and techniques that evaluators can use to facilitate their job. These include but are not limited to:

Army Occupational Survey Program reports.

Army Research Institute reports.

DAIG, TRADOC IG, FORSCOM IG reports.

TRADOC liaison reports.

Missile and Munition Evaluation (MAME) reports.

Skill Qualification Test (SQT) results.

FORSCOM training assistance and assessment team visits.

FORSCOM logistics assessment and assistance team visits.

Consolidated TRADOC and partnership visits to FORSCOM installations (begins 1 Oct 79).

DARCOM system assessment program results.

The next point might be a fine issue for semantic argument but my reason for bringing it up at this time is to present our view of the separation of the two prime responsibilities of Validation and Evaluation.

ILLUSTRATION:

What is the answer to these questions?

Does the product or program do what we expect it to do? Does the lawn mower really cut grass? Does the can opener cut the top off the can or just run along the rim? Can the student about to graduate perform the critical tasks to desired standards? I suggest that the answer may be found in Validation.

Likewise, what is the answer to these questions?

What is the reason that products fail to meet market/field expectations and what can be done about it, if anything?

Why is the lawn mower difficult to start for a 110 lb woman? Why does the can opener cut the lids off some cans and not off others? Why do supervisors indicate that our graduates cannot perform certain tasks to the standards anticipated in the field? I suggest we can look for the answers in Evaluation.

Therefore, our definitions of Validation and Evaluation are:

VALIDATION: Determination of whether systems or products meet their design goals or objectives by the directorates with prime responsibility for the system or product.

EVALUATION: Selected, independent assessments of systems, process or product effectiveness conducted primarily by the Directorate of Evaluation with feedback to other directors, the Commandant, and the field.

It may be of interest at this juncture to discuss the HQ TRADOC Evaluation Program and its impact on the schools. The program was initiated at the direction of GEN Starry in December 1977 with a test evaluation visit of the Signal Center, Fort Gordon, occurring at the end of February, early March 1978.

The mission of the Evaluation Program is to assess the effectiveness of center/school training development and training programs and to provide assistance where and when feasible. A composite team of representatives from the HQ TRADOC staff, TDI, ATSC, and the Combined Arms Center comprise the visiting evaluation team. A typical mission statement would be as follows:

MISSION

TRADOC Evaluation Team will conduct an on-site evaluation of the US Army Administration Center and the Defense Information School, Fort Benjamin Harrison, IN, during the period 30 May-8 June 1979, to obtain quality assurance data on training products developed and training processes, as part of the Evaluation of the TRADOC Service School System.

It is important to note that verbal critiques are conducted before the team leaves the installation and a written report is given to the Commandant and his directors.

In essence, the purposes of the evaluation are:

- Provide Training Development assistance where appropriate.

- Recommend TRADOC/ATSC policy changes where appropriate.

- Evaluate (review) training products/processes for the School Commandant as requested.

- Provide quality assurance to DCST, TRADOC for the TRADOC Commander.

In addition to the verbal critique for the Commandant, Assistant Commandant, and directors; there is an executive session with the team chief, the DCST, and the Commandant in attendance. On occasion, GEN Starry has participated in these sessions.

The key to the success of these evaluations goes back to the issue of credibility. If the Commandant and the directors believe that change is necessary and supports the overall school/center strategy, then change will occur.

As a matter of additional information, the areas that are evaluated are:

- Threat

- ARTEP

- Total Systems Development (CD/TD interface)

- Job/Task Analysis

- Soldier's Manuals (SM)

- Commander's Manuals (CM)

- Skill Qualification Test (SQT)

- Extension Training Program

Course Design and Development
Conduct of Training
Training Management
Combined Arms Training
Staff and Faculty Development
School Evaluation System

The approach is one of an in-depth evaluation of the training development and training systems for two MOS, for which the school/center has proponency.

Finally, I would share with you our views of evaluation shortcomings throughout the TRADOC. Some of these are:

Lack of feedback of field requirements into Training Developments (TD) Process.

(and particularly collective requirements)

Inadequate data on the use--or lack of use--of a particular school's training support materials (TEC, Devices, Simulators, etc.).

Inadequate use of available materials (SQT task analysis) to influence TD process.

Failure to insure that Job and Task Analysis are documented and sound.

In summary, all of these issues require the best efforts of the total assets available to the center/school. The best working relationship in our judgment is one where the Directorate of Evaluation is viewed by the other directorates as a highly credible source of information and feedback. It is also most important that this perception is shared by action elements of the directorates and that analysts, and design and developers have confidence in evaluators as a constructive part of the process and not a hindrance.

Thank you,

DONALD W. BARTLETT
Office of the Deputy Chief of Staff
for Training
Evaluation Directorate